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CANADA

YEAR BOOK

1990




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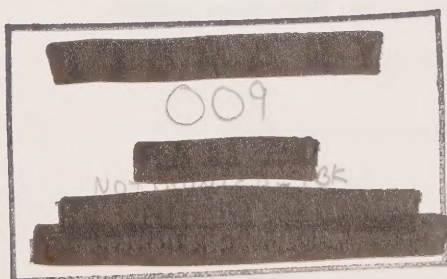


CANADA

YEAR BOOK

1990

A review of economic, social and political
developments in Canada



Published under the authority of the Minister
of Regional Industrial Expansion

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PREFACE

For over 120 years the *Canada Year Book* has recorded the economic, social and political life of Canada.

Like its predecessors, the *Canada Year Book 1990* brings together in a single volume a wealth of information from various sources to provide a composite portrait of Canada in all its diversity and richness. Over the years, it has become the standard statistical reference source on Canada, widely consulted by librarians, parliamentarians, teachers, diplomats, journalists and others.

To mark the opening of the last decade of this century the 1990 edition features a variety of computer-generated maps, illustrating key social and economic trends.

Readers with an interest in following up in more detail on a particular topic will be pleased with another innovation to the 1990 edition. A selected list of related publications has been added to the end of each of the twenty-three chapters. In addition, the index has been significantly expanded and improved to provide more ready access to the wealth of information contained herein.

The content for the *Canada Year Book* is drawn from over 300 contributors, making it impossible to acknowledge each individually. Nevertheless, our gratitude to each remains, as does our gratitude to the Canadian public for responding to the surveys and providing the data that are the foundation of this nation's statistical system.

As were the publishers of the first edition of the *Year-Book*, we are...

"witnesses of the extreme care taken to ensure accuracy, and believing the contents of the *Year-Book* to be of general usefulness, feel sanguine that the work will meet with public favour."

Ivan P. Fellegi
Chief Statistician of Canada
Ottawa

November 1989

The *Canada Year Book* is planned, compiled and edited in the
Compendia Publications Unit, Communications Division,
Statistics Canada
Director: Douglas Newson
Chief, Compendia Publications: Ellen Henderson

Editor/Co-ordinator: Margaret Smith
Tables: Patricia Harris and Susan Irving
Assistance: Amelia Gomez, Wendy Havard-Wong,
Linda MacDonald, Isabella Marcinek
Index: Christine Bond

French editor: Sylvie Blais
Assistance: Vincent Beaulieu, Anita Bédard, Marguerite Cantin,
Marc Saint-Laurent
Translation: Statistical Section, Translation office,
Secretary of State

Charts: Jean-Marie Lacombe, Renée Saumure
Design: Rachel Penkar
Graphics advisor: Carolyn Weiss
Illustrations for charts: Murdo Morrison

Production co-ordinator: Diane Leblanc
Production: Elaine Brassard, Chantal Caron-Lance,
Natacha Cousineau, Nicole Klein, Colette Mayer
Technical assistance: Chantal Chalifoux, André La Chapelle,
Francine Girard

Composition: Suzanne Beauchamp, Karen Charbonneau,
Diane Goulet, Monique Légaré, Sue Liniger,
Ginette Meilleur, Cheryl Van Bastelaar

Marketing co-ordinator: Joan Tremblay

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Mass (weight)

1 g (gram)	=	0.03527396 ounces (avoirdupois)
	=	0.03215075 ounces (troy or apothecary)
1 kg (kilogram)	=	2.20462262 pounds (avoirdupois)
1 t (metric tonne)	=	1.10231131 tons (short)
	=	0.98420653 tons (long)

(For register ton, see Volume and capacity, and footnote *)

Length and mass

1 t.km (tonne kilometre)	=	0.6849446 short ton miles
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Volume and mass

1 m³ of water weighs 1 tonne

Temperature

Fahrenheit temperature	=	1.8 (Celsius temperature) + 32
Celsius temperature	=	5/9 (Fahrenheit temperature - 32)

At sea level water freezes at 0°C (32°F) and boils at 100°C (212°F)

The following weights and measures are used in connection with the principal field crops and fruits:

Crops	Pounds per bushel	Kilograms per bushel	Bushels per 1 000 kg (1 t)
Wheat, potatoes and peas	60	27.215 5	36.7437
Wheat flour	43.48	19.721 4	50.7063
Oats	34	15.422 1	64.8418
Barley and buckwheat	48	21.772 4	45.9296
Rye, flaxseed and corn	56	25.401 2	39.3682
Mixed grains	45	20.411 7	48.9916
Rapeseed, mustard seed, pears, plums, cherries, peaches and apricots	50	22.679 6	44.0925
Sunflower seed	24	10.886 2	91.8593
Apples	42	19.050 9	52.4910

Strawberries and raspberries 1 kg	=	1.47 quarts in BC
	=	1.76 quarts in all other provinces

To produce 100 kg of flour it takes 138 kg of wheat.

*Gross register tonnage of a ship, as used by Lloyd's Register of Shipping, is a measurement of the total capacity of the ship and is not a measure of weight. Net register tonnage equals gross register tonnage minus space used for accommodation, machinery, engine area and fuel storage, and so states the cargo-carrying ability of the ship.

CHAPTER 1

PHYSICAL SETTING

CHAPTER 1

PHYSICAL SETTING

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CAPITAL CITIES OF CANADA

Canada is the largest country in the Western Hemisphere and the second largest in the world. Politically, it is divided into 10 provinces and two territories with extensive borders and varied land mass: from rugged coastline rising from the sea in Newfoundland; to flat fertile lowland areas in Saskatchewan; to lofty peaks thrusting out from the British Columbia landscape. Canada's diverse geographical character not only creates a cross-section of climatic conditions, but ensures that each capital city offers its own unique blend of Canadian culture.

CHAPTER 1

PHYSICAL SETTING

1.1 Dimensions

Canada is the largest country in the Western Hemisphere and second largest in the world. Its territory is diverse, ranging from wide fertile prairies and farmlands, great areas of mountains, rocks and lakes to northern wilderness and Arctic tundra. The greatest north-south distance is from Cape Columbia on Ellesmere Island to Middle Island in Lake Erie, 4634 km. The greatest east-west distance is from Cape Spear, Nfld. to the Yukon-Alaska border, 5514 km.

Although the area is recorded as 9970610 km² for land and freshwater, Canada also encompasses the Canadian continental margin. The offshore areas of the margin, including Hudson Bay, cover over 6.5 million square kilometres, an area equivalent to over 60% of Canada's total onshore area.

1.1.1 Regional geography

Politically, Canada is divided into 10 provinces and two territories. Each province administers its own natural resources. The resources (except for game) of Yukon and Northwest Territories are administered by the federal government, because of the extent and remoteness of the territories and their sparse population. Land and freshwater areas of the provinces and territories are given in Table 1.1. Throughout the *Canada Year Book* the provinces are listed from east to west, followed by the territories.

Newfoundland is Canada's most easterly province. The larger part, Labrador, borders the North Atlantic Coast to Hudson Strait and extends inland about 750 km toward its southern end. The surface is mostly a barren mosaic of rocks, swamps and lakes; its rugged coastline has promontories rising directly from the sea. The extreme northern area is dominated by the Torngat Mountains, rising to 1622 m. Labrador has a rigorous climate and is snow-covered for more than half the year. Many of its river valleys are well forested. Rivers have numerous falls suitable for hydro development, such as Churchill Falls. Coastal waters abound in fish. The Precambrian rocks have

mineral potential; iron ore is Labrador's greatest source of wealth.

The Island of Newfoundland is also rugged. The Long Range Mountains parallel the western coast and rise to heights of over 800 m. Old, worn-down fold-ridges have axes trending northeast to southwest. Much of the surface is barren and rocky and has innumerable ponds and swamps, the drainage having been deranged in the last glaciation. The moderating influence of the sea is reduced by the cold waters of the Labrador current sweeping along the East and West Coasts. Summers are cool and winters relatively mild.

The capital city is St. John's, on the East Coast of the Avalon Peninsula. Other urban areas are Corner Brook on the West Coast and Grand Falls in the central part of the island, both pulp and paper centres.

Prince Edward Island. The smallest province is cradled in the Gulf of St. Lawrence, east of New Brunswick and north of Nova Scotia and separated from them by the Northumberland Strait. It has no pronounced upland but attains an altitude of about 140 m above sea level. The coast is greatly indented and has many bays and inlets running inland in every direction. Influenced by the sea, the climate is quite moderate except for occasional extreme lows in winter.

The capital of Prince Edward Island is Charlottetown.

Nova Scotia is a peninsular province almost surrounded by waters of the Bay of Fundy, the Atlantic Ocean, the Gulf of St. Lawrence and Northumberland Strait. It is connected with New Brunswick by the Isthmus of Chignecto. The northeastern portion, Cape Breton Island, is separated from the mainland by the Strait of Canso, now traversed by a permanent causeway. The island is almost bisected from northeast to southwest by the saltwater Bras d'Or Lake; a wooded upland rises in the North. Most of the mainland is of low relief. Summer and winter temperatures are more moderate than in interior continental areas at the same latitude and the

seasons are somewhat later. Winters are stormy on the Atlantic Coast and fog is prevalent all year. The Atlantic side is rocky and deeply indented with bays and inlets providing many harbours.

The two large urban areas are Halifax-Dartmouth and Sydney-Glace Bay. Halifax, the capital, is situated on one of the best natural harbours in the world.

New Brunswick is nearly rectangular with an extensive seacoast provided by the Chaleur Bay on the North, the Gulf of St. Lawrence and Northumberland Strait on the East, and the Bay of Fundy on the South. It adjoins Quebec and the United States.

The surface is mostly undulating. A north-western plateau, 300 to 450 m above sea level, is deeply dissected by valleys leading to the Saint John River which flows generally southward across the province. The central highlands consist of a dissected plateau about 610 m above sea level. A maritime plain slopes eastward from the highlands and extends along the coast of New Brunswick from the southern shore of Chaleur Bay. New Brunswick's climate reflects the moderating influence of the sea. Seasons are somewhat delayed and temperatures in the interior are more extreme than on the coasts.

Fredericton is the capital. Saint John, at the mouth of the Saint John River, is the principal port and industrial centre.

Quebec, the largest province in area, extends north and west of the St. Lawrence River and Gulf of St. Lawrence to Hudson Strait and Hudson Bay and a line running due south of James Bay; it is bounded on the southwest by the Ottawa River and on the northeast by Labrador. South of the St. Lawrence are the Eastern Townships and the Gaspé Peninsula.

Physiographically, Quebec has three regions. The plateau-like highlands of the Canadian Shield occupy the greater part of the area north of the St. Lawrence River. Made up of a mass of ancient and mainly hard rocks, they present a rough, broken surface strewn with lakes. The Appalachian Mountains extend through the area south of the St. Lawrence. The St. Lawrence lowlands are low and flat, covered by deep clay deposited when the area was invaded by the Champlain Sea after the melting of Pleistocene ice. In this fertile agricultural area the people for generations gained their livelihood from the land. Although now far outranked by manufacturing and services as an employer, agriculture is still a fundamental way of life.

In the St. Lawrence Valley, the frost-free season extends from early May to late September.

Northward and westward, winter temperatures become more extreme and the summers cooler.

Montreal, the largest city, is one of the great industrial, commercial and financial centres of the continent. The capital city of Quebec was founded by Champlain in 1608.

Ontario has a freshwater shoreline on the Great Lakes and a northern saltwater shoreline on Hudson Bay and James Bay.

Ontario has two major physiographic regions, the Canadian Shield and the gentler lowlands of the Great Lakes-St. Lawrence region. The Canadian Shield terrain, a rugged, rocky plateau strewn with lakes and muskeg, is a difficult surface over which ground transportation routes have been constructed with great effort. The height of land lies in a wide crescent north of Lake Superior. A slope descends gently toward James Bay and Hudson Bay to a marginal strip, the Hudson Bay lowlands. This area bears the brunt of severe winter cold waves moving east from the Prairies or south from the Arctic across Hudson Bay. Summers, though warm, are short.

The southern lowlands region, about one-sixth the size of northern Ontario, has such glacial features as rock plains, morainic hills, till plains, clay plains, drumlins and sand plains. The southwestern tip extends farther south than any other part of Canada. Peninsular Ontario has a much milder climate than the northern districts. Since it lies in a major storm track, wide variations occur in weather, especially in winter, but conditions of severe cold or excessive warmth are not prolonged.

This lowlands area is densely populated and highly industrialized. Favourable climate, fertile soil and ease of travel over relatively unobstructed terrain and on the St. Lawrence River and the Great Lakes influenced population growth, and agriculture became well established. Early colonial settlements have become highly industrialized and produce almost every product required by consumers. The area is now one of the world's great industrial agglomerations with the provincial capital, Toronto, as its focal point.

Manitoba is the most easterly of the three Prairie provinces. It has two distinct topographic forms, the largest part within the Canadian Shield. The demarcation line begins close to the southeast boundary and runs diagonally northwest through Lake Winnipeg to the Saskatchewan border. The northern area has heavily glaciated topography and deranged drainage. Its major rivers, Nelson and Churchill, flow into Hudson Bay. The southwestern portion is the lowest of three step-like formations across the great central plains. It is

flooded by deep fertile clay soils left by glacial lakes that once covered the area. It is separated from the Saskatchewan plain along its western boundary by the Manitoba escarpment, a narrow belt of hilly terrain.

Manitoba has the greatest water-power potential of the three Prairie provinces. The North is well forested but much of the productive area is so remote that forest industries are not highly developed.

Winnipeg, the capital, is the industrial centre of Manitoba.

Saskatchewan is two-thirds prairie lowland, the great grain-producing region of Canada. The demarcation line between the lowlands and the Canadian Shield, crossing into Saskatchewan near the 55th parallel, continues northwest across the province although it becomes less sharply defined. The second step of the prairie formation, covered with deep fertile soil, is exceptionally flat in some areas but elsewhere hummocky with innumerable sloughs. The next scarp is the Missouri Coteau from which extends the highest of the prairie steps. The Cypress Hills rise above this level. Cutting across the lowland are the branches of the Saskatchewan River which flow to Lake Winnipeg.

Saskatchewan's climate is continental with long cold winters and warm summers. The frost-free period in the fertile lowland areas ranges from 80 to 100 days. Precipitation is low with an average of less than 50 cm a year.

The urban centres — Regina, the capital, and Saskatoon — serve mainly as distributing centres for their surrounding areas.

Alberta lies mainly in the interior plains region. The southern part of the province is dry, treeless prairie changing toward the north into a zone of poplar interspersed with open prairie and giving way to mixed forests.

The boundary follows the 49th parallel, strikes northwest following the ridge of the Rocky Mountains to a point close to the 55th parallel and then turns directly north to the 60th parallel. From the Saskatchewan border in the southern area the plain rises gradually as it merges into the Rocky Mountain Foothills. This foothills area is part of the Western Cordilleran region. The Alberta Rockies have numerous high peaks close to or on the British Columbia boundary.

The South is subject in winter to cold dry air masses of continental polar air, occasionally moderated by Chinook winds. Summers are warm with abundant sunshine but rainfall is meagre and highly variable, particularly in the southwest, with periodic droughts. In some areas irrigation projects have been developed, taking water from the rivers rising in the mountains to the West.

The metropolitan areas of Edmonton, the capital, and Calgary are in the oil and gas producing areas.

British Columbia consists almost completely of the Cordilleran region made up of parallel mountain ranges oriented in a north-south direction with a set of parallel linear valleys.

The Rocky Mountains on the East present a continuous range of wall-like ridges, cut up by glaciation into sharp peaks, knife-like edges and deep hollows. Some of the highest peaks in the Canadian Rockies rise to 3500 m or more.

The central section is marked off by the Rocky Mountain Trench which contains the headwaters of the Kootenay, Columbia, Fraser, Peace and Liard rivers. Westward, relief is lower and broader and the effects of glaciation are not as spectacular. This section consists of several mountain ranges, with plateaus and lake basins between them.

In the western section the Coast Mountains extend southward from the St. Elias Mountains where the loftiest peaks on the continent thrust up out of glistening icefields.

The inner passage adjacent to the coast — the Strait of Georgia, Queen Charlotte Strait and Hecate Strait — is one of the finest natural waterways in the world. Vancouver Island rises steeply from a rocky coastline; in the Queen Charlotte Islands, individual mountain ranges are separated by deep, narrow valleys.

Prevailing westerly winds and the warm Pacific waters result in mild wet winters in the coastal area, warm summers and the longest average frost-free season in Canada. Inland, there are greater ranges of temperature and much less rainfall. Semi-arid conditions occur in some of the plateau areas of the interior. The North has long cold winters, short cool summers and moderate precipitation.

Vancouver is the largest city, a rapidly growing industrial complex and seaport. Victoria, the capital, is on the southern tip of Vancouver Island.

Yukon, north and slightly west of British Columbia, is a triangular area of plateaus and mountain ranges bounded by the Northwest Territories and Alaska. Its only seacoast extends along the Arctic Ocean west of the Mackenzie River Delta. Between the Coast Mountains on the West and the Mackenzie Mountains on the East lies a plateau of rough, irregularly rolling upland. Numerous river valleys cut through mountains and plateaus. In the southwest many peaks of the St. Elias Mountains reach heights of over 4000 m. The highest point in Canada, Mount Logan (5951 m), is located in this mountain range.

The whole region is north of latitude 60° and part is beyond the Arctic Circle. In summer, long hours of daylight promote rapid growth where there is suitable soil. In winter, the days are short with little effective sunshine. Despite wide variations in temperature, winters are remarkably mild for the latitude and periods of intense cold are of short duration.

The Alaska Highway provides a transport link with British Columbia and Alberta. The capital and main urban centre is Whitehorse.

Northwest Territories includes all Canadian territory north of the 60th parallel of latitude except Yukon, the northwestern tip of Quebec and Labrador, and all islands south of the 60th parallel in Hudson Bay and James Bay. This vast area, more than one-third of Canada, is one of extremes in topographical characteristics, flora and fauna, and climate with permafrost throughout. East of the mountain fringe along the Yukon boundary, the mainland plains slope east to Hudson Bay and northeast to the Arctic Archipelago. The interior plains of the central continent extend to the Arctic Ocean. Across the low-lying mainland area flows the Mackenzie River, draining Great Slave Lake and Great Bear Lake and emptying into the Arctic Ocean. The whole northeastern portion of the mainland is treeless tundra studded with countless lakes, swamps and muskeg. In southern areas summers last for about three months with temperatures above 10°C. North of the treeline, freezing temperatures may occur during any month and winters are long and bitterly cold. In the Archipelago, high mountain ranges lie in a general north-south direction across Baffin, Devon and Ellesmere islands. Climates are moderated by the sea so that extremes are not as severe as in a continental area of the same latitude. Temperatures in the Archipelago are generally below -18°C for six months or more. Occasional mild periods occur during the winter, particularly in the western Arctic. Summers are short and cool. Winter nights and summer days are long, reaching a maximum of 24 hours. Precipitation is extremely light and falls mostly in late summer.

The capital, Yellowknife, is situated on the north shore of Great Slave Lake. Road access to the rest of Canada is restricted to the Mackenzie Delta and Great Slave Lake areas. In the eastern Arctic, the focal point is Iqaluit (Frobisher Bay).

1.1.2 Economic geography

Newfoundland. The economy is based largely on natural resources and their processing. Pulp and paper and food processing are the main elements of manufacturing. Iron ore is the largest

component of the substantial mineral production with zinc and asbestos having some importance. Cod forms over half the value of landed species in the extensive fishing industry.

Prince Edward Island. Agriculture is the principal occupation. Almost 70% of the land is cultivated, producing mixed grain crops but specializing in potato growing. Dairying and livestock raising are also important. The lobster catch accounts for about 60% by value of primary fishery production. Food processing makes up the bulk of manufacturing.

Nova Scotia. The fishery is one of Canada's largest; principal species by landed value are lobster, cod, scallop and haddock. Agriculture is centred on dairy products, livestock and fruit. Coal is the principal mineral produced; others are gypsum and salt. Manufacturing is varied and includes food processing, forest products and transportation equipment.

New Brunswick. Forest products and food processing are the principal types of manufacturing. The most important species in the provincial fishery in terms of landed value are lobster and crab. Agriculture is varied, with dairy products and potatoes being the most important products. In mineral production, zinc, lead and byproduct metals form most of the value of minerals produced.

Quebec accounts for about one-quarter of Canadian manufacturing. Leading are textile and clothing industries, followed by food processing, pulp and paper, primary metals, chemicals, metal fabricating, the wood industries and transportation equipment. Quebec is a major producer of gold, iron ore and copper, and a leading world producer of asbestos. Agriculture is concentrated on dairy products and livestock. There is a sea fishery with cod being the principal species. Quebec is a major producer of hydroelectric power.

Ontario accounts for about half of Canadian manufacturing. The largest single sector is transportation equipment; others include food processing, primary metals, metal fabricating, electrical products, chemicals, pulp and paper, and printing. Ontario ranks first among the provinces in agricultural receipts. In farming, livestock and dairy products predominate but there is a large production of cash crops, notably tobacco and vegetables. Although Ontario ranks second in mineral production by value, it is first in metals production including nickel, copper, uranium, gold and zinc. There is a freshwater fishery, primarily in the Great Lakes.

Manitoba. The economy has been built on agricultural resources, mainly wheat and other grain crops but a variety of livestock products are also important. Manufacturing is varied, led by food processing and metal fabricating. Mineral production is primarily based on metals, especially nickel, copper and zinc; petroleum is also notable. There is a commercial freshwater fishery.

Saskatchewan. Agriculture is the leading industry with wheat and other grains the major component. The large value of mineral production is divided among non-metals, principally potash (Saskatchewan is a major world producer of potash), fuels and metals, notably uranium. The manufacturing sector is relatively small and varied.

Alberta. About half the value of minerals produced in Canada comes from Alberta, almost entirely related to fuels — petroleum, natural gas and its byproducts (including natural gas liquids and sulphur), and coal. Agriculture is an important sector with grains and livestock prominent. There is a substantial diversified manufacturing sector.

British Columbia. Natural resources are the basis of the economy. Forestry is particularly important, both as a primary activity and as the largest component of the province's manufacturing sector. Although lumber is the main forest product, pulp and paper production is also substantial. Other manufacturing includes food processing and metals. The province's mineral production is very large, with both fuels (coal, natural gas and petroleum) and metals (notably, copper and molybdenum) predominating. Dairy products and cattle are the main forms of agriculture; fruit, vegetables and specialty crops are also prominent. Salmon makes up over half the landed value of the extensive fishery with herring also important.

Yukon. Mining is a leading activity with gold and silver the principal products, at present.

Northwest Territories. The mining industry is large with zinc, gold and lead the leading minerals. There is also some oil and gas production. Fur and fisheries resources, the mainstay of the native population, are exploited commercially to some extent.

1.1.3 Settlement

There is no permanent settlement in approximately 89% of Canada. Only the smallest province, Prince Edward Island, is completely occupied. Large parts of the interior of Nova Scotia, New Brunswick and the Gaspé Peninsula are vacant. Around the coast of Newfoundland and on the shores of the St. Lawrence River below Quebec City there are only narrow bands of settlement.

About 58% of Canada's population lives between the American border and a 1 046 km east-west line from Quebec City to Sault Ste Marie, Ont. In this area, the cities of Montreal, Toronto, Hamilton, Ottawa, London, Windsor, Quebec City and Kitchener account for more than one-third of the population.

The largest tract of continuous settlement is in Manitoba, Saskatchewan and Alberta, north of the United States border. This block occupies about 6.2% of Canada's area and contains five major cities: Edmonton, Calgary, Winnipeg, Saskatoon and Regina. North of this mainly agricultural block, astride the Alberta – British Columbia border, is the Peace River district, an agricultural area which reaches the 57th parallel.

The southern half of British Columbia is settled in interconnecting strips following mountain valleys and coastal plains. BC's population is most dense, however, in the lower mainland, principally in the Vancouver area.

North of the areas already described are a number of remote settlements, the largest being in Ontario and Quebec between the 47th and 50th parallels. Outside these urban-rural blocks are numerous settlements related to mining, forest industries, transportation, administration, defence, hunting and fishing but with little or no agriculture.

1.2 Physical features

1.2.1 Mountains

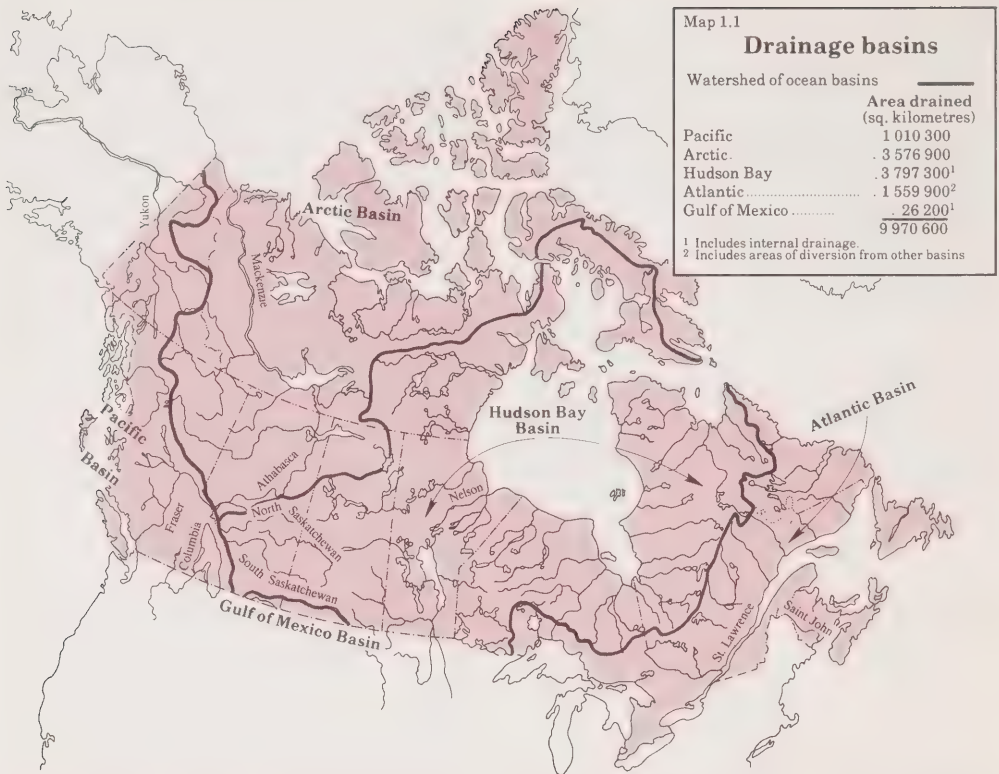
The great Cordilleran mountain system is Canada's most impressive physical feature. Many peaks in the various ranges of the Canadian Cordillera are over 4 500 m high and approximately 1 500 km² of territory lie above the 3 048 m mark. Mount Logan, 5 951 m above sea level, in the St. Elias Mountains of Yukon is the highest point in Canada.

Rossland, BC is the highest city in Canada (1 056 m) and Lake Louise, Alta. is the highest hamlet (1 540 m). Chilko Lake in British Columbia, with an area of 158 km², is the highest major lake (1 171 m). Heights of the more important Canadian mountains and other elevations are given in Table 1.2.

1.2.2 Inland waters

Abundant water supplies have contributed significantly to Canada's development.

Each year millions of tonnes of water fall on Canada as rain and snow. Much of it evaporates, some is stored in lakes, groundwater reservoirs and glaciers, and a larger amount runs off in rivers or streams to the oceans. The Atlantic and Pacific



coastal regions experience the highest precipitation (100-140 cm), followed by Ontario and Quebec (65-90 cm) and the semi-arid Prairie region (40-55 cm). Canada's northland receives the lowest precipitation (15-40 cm).

About 30% of the mean annual precipitation occurs as snow, and much of it remains stored in its natural form for several months until spring. This snow cover is vital for soil moisture and recreation, however, flooding may occur, when river levels rise, and the melting snow cannot be carried off rapidly enough.

Despite abundant water in southern Canada, certain areas, particularly the Prairies, are inadequately supplied. This is due in part to sparse rainfall and due to the fact that almost half of Canada's water flows northward through undeveloped areas, largely unused. The summer of 1988 was particularly dry and caused hardship for many farmers.

About 7.6% of Canada's total area is covered by lakes and rivers, making surface water the source of 90% of freshwater for water users throughout Canada (Table 1.1). The remaining 10% is obtained from groundwater sources.

Lakes are natural regulators of river flow; they smooth out peak flows during flooding and sustain

stream flow during dry seasons. Among the largest freshwater bodies in the world are the Great Lakes with an area of almost 250 000 km²; 37% is in Canada and 63% in the United States (Table 1.3). The size and elevation of other large Canadian lakes are listed in Table 1.4.

Groundwater and alpine glaciers contribute to stream flow in Canada. In some areas, particularly the Prairies, groundwater is the principal source of water for streams during extended dry weather periods. In hot summer months, glaciers may contribute up to 25% of the flow of the Saskatchewan and Athabasca rivers.

The main measure of a country's water supply is its renewable stream flow. On an average annual basis, Canada's rivers discharge roughly 105 000 m³ per second, nearly 9% of the world's renewable water supply and equivalent to about 60% of Canada's mean annual precipitation. Table 1.5 lists Canada's principal rivers.

The international boundary between Canada and the United States, including Alaska, is 8 900 km long, of which 3 900 km lie along or across water bodies. Boundary basins are of economic importance to both countries.

The Atlantic drainage basin is dominated by the Great Lakes-St. Lawrence system which carries

ocean-going vessels into the heart of North America and constitutes one of the largest single reserves of freshwater in the world. The vastness of this water area is evident from the fact that the lakes are able to absorb and moderate large variations in flow entering them and still maintain remarkably uniform outflows.

The Hudson Bay drainage basin is the largest in area but sparse rainfall in its western region places it second highest in terms of river flow, behind Atlantic drainage. It is noted for agriculture on the West and hydroelectric development on rivers surrounding Hudson Bay.

The Arctic drainage basin is dominated by the Mackenzie, one of the world's longest rivers. It flows from the head of the Finlay River to the Arctic Ocean and drains an immense area in the three western provinces and northern territories. Except for a 26 km portage in Alberta, barge navigation is possible from Fort McMurray on the Athabasca River to the mouth of the Mackenzie, a distance of 2700 km.

The Pacific drainage basin contains rivers that rise in the mountains of the Cordilleran region and flow to the Pacific Ocean through steep canyons and over innumerable falls and rapids. They provide power for large hydroelectric developments and in season swarm with salmon returning inland to their spawning grounds.

Use of inland water. Dams built across large rivers have met the major share of Canada's electric energy needs over past years and still meet two-thirds of that need today. Recreation, transportation, wildlife and fisheries are other important uses of water in its natural setting.

Uses which withdraw water from its source are classified as municipal and industrial. Current industrial uses and their relative share of water are thermal power generation (cooling) 52%, manufacturing 27%, agriculture 8% and the mineral industry 2%. The remaining 11% is attributed to municipal water use. In manufacturing and the mineral industry, water is recirculated, that is, it is used more than once before being returned to source. Agriculture is the only use that consumes most of the water withdrawn, with as little as 23% being available for other users; in contrast, thermal electric generation returns to source more than 99% of the water withdrawn.

1.2.3 Coastal waters

Canada's coastlines, measuring nearly 244 000 km on the mainland and offshore islands, are collectively among the longest of any country in the world.

Atlantic. Along this coast, over time the sea has inundated valleys, lower parts of the Appalachian

Mountains and the Canadian Shield. The submerged continental shelf has great width and diversity of relief. From the coast of Nova Scotia, its width varies from 60 to 100 nautical miles, from Newfoundland 100 to 280 nautical miles at the entrance of Hudson Strait, and northward it merges with the submerged shelf of the Arctic Ocean. The outer edge varies in depth from 183 to 366 m. The overall gradient of the Atlantic continental shelf is slight but the whole area is studded with shoals, plateaus, banks, ridges and islands. The 73 m line is an average of 12 nautical miles from the Nova Scotia Coast and is the danger line for shipping. The whole floor of the marginal sea is traversed by channels and gullies cutting deep into the shelf. Large areas undergo constant change because of continuous marine deposit of materials eroded by rivers, wave action, wind and ice.

Hudson Bay and Hudson Strait bite deeply into the continent. Hudson Bay is a shallow inland sea 822 324 km² in area having an average depth of about 128 m; the greatest depth in the centre of the Bay is 258 m. Hudson Strait separates Baffin Island from the continental coast and connects Hudson Bay with the Atlantic Ocean. It is 796 km long and from 69 to 222 km wide; its greatest depth of 880 m is close inside the Atlantic entrance. There are great irregularities in the seafloor but few navigational hazards, except in inshore waters.

Pacific. The marginal sea of the Pacific differs strikingly from other marine zones of Canada. The hydrography of British Columbia is characterized by bold, abrupt relief — a repetition of the mountain landscape. Numerous inlets penetrate the mountainous coasts for distances of 93 to 139 km. They are usually a nautical mile or two wide with deep canyon-like sides. From the islet-strewn coast, the continental shelf extends from 50 to 100 nautical miles to its limit at depths of about 366 m. The seafloor drops rapidly from the western slopes of Vancouver Island and the Queen Charlotte Islands. These detached land masses are the dominant features of the Pacific marginal sea. Numerous shoals and pinnacle rocks necessitate cautious navigation.

Arctic. The submerged plateau extending north of North America is part of the great continental shelf surrounding the Arctic Ocean, on which lie all the Arctic islands of Canada, Greenland, and most of the Arctic islands of Europe and Asia. This shelf north of Siberia is about 500 nautical miles wide; north of North America it surrounds the western islands of the Archipelago and extends 50 to 300 nautical miles seaward from the outermost islands.

The floor of the submerged continental margin is nearly flat to gently undulating, with isolated rises and hollows. Most of it slants seaward with an abrupt break at the outer edge to the continental slope. From the Alaskan border eastward to the mouth of the Mackenzie River the shelf is shallow and continuous with the coastal plain on the mainland; its outer edge is at a depth of about 64 m and 40 nautical miles offshore. Near the western edge of the Mackenzie River delta it is indented by the deep Mackenzie Trough, formerly referred to as the Herschel Sea Canyon, whose head comes within 15 nautical miles of the coast. The submerged portion of the Mackenzie Delta forms a great pock-marked undersea plain, most of it less than 55 m deep, up to 75 nautical miles wide and 250 miles long. North and east of it, the continental shelf is more deeply submerged. Most of the well-defined continental shoulder is over 549 m deep, giving way to the smooth continental slope which extends to the abyssal Canada Basin at about 3 658 m. The deeply submerged continental shelf runs along the entire West Coast of the Canadian Arctic Archipelago from Banks Island to Greenland. Major channels between the islands have flat floors at about the same depth as the shelf. A few local irregularities may be the result of glacial action. The only deep indentation is one sinuous canyon that heads off Robeson Channel at the northeastern end, close to Greenland. Submerged sides of the channels of the Archipelago, and slopes from the islands' western shores are marked in many places by a series of steps.

1.2.4 Islands

Canada's largest islands are in the North in the Canadian Arctic Archipelago. The northern group extends from the islands in James Bay to Ellesmere Island which reaches 83°07'N.

The largest on the West Coast are Vancouver Island and the Queen Charlotte Islands, but the coastal waters are studded with many small rocky islands. The largest off the East Coast are the Island of Newfoundland, Prince Edward Island, Cape Breton Island, Grand Manan and Campobello islands of New Brunswick, and Anticosti Island and the Îles de la Madeleine of Quebec.

Notable islands of the inland waters include Manitoulin Island, in Lake Huron, the so-called Thirty Thousand Islands of Georgian Bay and the Thousand Islands in the outlet from Lake Ontario into the St. Lawrence River.

The areas of principal islands by region are given in Table 1.6.

1.2.5 Surveying, mapping and remote sensing

The Surveys, Mapping and Remote Sensing Sector of the federal Energy, Mines and Resources department (EMR) is Canada's national mapping agency. The sector provides the precise geodetic survey framework which is fundamental to all other forms of surveying. The mapping of Canada has been completed at the scale of 0.4 cm to 1.0 km (1:250,000). All of the settled areas and many regions of northern development, amounting to more than 85% of the country, have also been mapped at a larger scale of 2.0 cm to 1.0 km (1:50,000). Photomaps derived from air photographs cover some of the areas mapped at the larger scale.

A legal surveys division of EMR manages and regulates surveys of federal lands, such as the northern territories, national parks, Indian reserves and offshore areas and is responsible for the custody of the related land survey information. The division is implementing a property mapping system which will form the base for a multipurpose land information system. It executes surveys on behalf of administering departments, collaborates in the demarcation and maintenance of provincial and territorial boundaries and verifies descriptions of electoral districts.

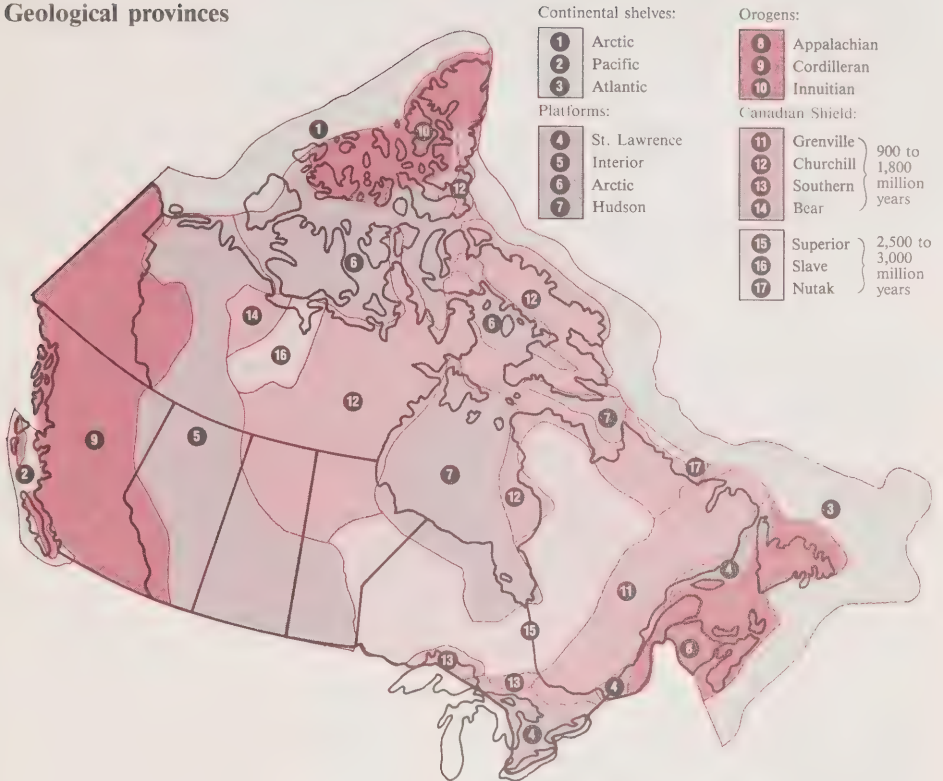
A geographical services division provides geographical information and cartographic advice to other federal programs. This division produces the *National Atlas of Canada*, the *Canada Gazetteer Atlas*, aeronautical charts and air information required for regulation, safety and development of Canadian civilian and military aviation. A national geographical names data base provides information on the status, origin and location of the names of more than 400,000 geographical features and places in Canada.

A permanent committee on geographical names establishes federal policy for the treatment of geographical names. Its secretariat advises on the origin and use of names and geographical terminology. The committee of 20 members, representing both federal and provincial jurisdictions, recognizes the right of each province to make decisions on names in its own area.

An international boundary commission maintains a well-defined boundary line between Canada and the United States and regulates all works, such as buildings, pipelines and roads crossing or near the line.

The Canada Centre for Remote Sensing (CCRS) has the mandate to improve remote sensing technology and to develop applications of satellite imagery and special airborne sensing systems such as radar imagers for resource monitoring

Map 1.2

Geological provinces

and environmental protection. CCRS facilitates the acquisition of satellite imagery from various international satellites through its receiving stations at Gatineau, Que. and Prince Albert, Sask. A third central role is to help the growing, export-oriented remote sensing industry maintain its position as a world leader in providing products and services overseas.

Maps, aeronautical charts and air information publications may be purchased from the Canada Map Office. Reproductions of federal aerial photography and colour transparencies of selected LANDSAT Satellite Scenes of the landmass may be purchased from the National Air Photo Library.

1.3 Geology

Canada is composed of 17 geological provinces which are of four major categories: shield, orogen, platform and shelf.

The Precambrian Shield is a vast region covering most of eastern and north-central Canada in a broad band around Hudson Bay. It is composed of seven geological provinces. Three of them,

Superior, Slave and Nutak, were deformed during the Archean Eon and contain the oldest continental crust known in Canada, ranging from 2,500 to over 3,000 million years in age. Churchill, Southern and Bear provinces embrace ancient mountain belts produced 1,750 million years ago during a major Proterozoic orogeny. A younger Proterozoic orogeny about 1,000 million years ago deformed the Grenville province.

The shield was worn down by erosion in late Precambrian times. The sea encroached during the succeeding Paleozoic and Mesozoic eras and deposited sediments. These were largely stripped off by erosion in Cenozoic time. The shield has a characteristically hummocky surface and is low lying except along its eastern margin in Labrador, and Baffin and Ellesmere islands.

Orogens. The Appalachian, Cordilleran and Innuitian orogens are mountain belts of deformed and metamorphosed sedimentary and volcanic rocks, mainly of Phanerozoic age, intruded by great masses of granite. The orogens are of different ages and different complex origins.

Platforms. The St. Lawrence, Interior, Arctic and Hudson platforms are formed of thick, flat-lying Phanerozoic strata which cover large parts of the Canadian Shield. The Interior platform is a vast flatland extending west from the edge of the shield to the foothills of the Rocky Mountains.

Shelves. The geologically youngest provinces, the submarine Atlantic, Pacific and Arctic continental shelves, are formed of little deformed sediments chiefly of Mesozoic and Cenozoic age that have accumulated and are still accumulating along the margins of the present continental mass.

1.4 Climate

Climate depends primarily on radiative exchanges between the sun, the atmosphere and the surface of the earth. Regional climates of Canada are controlled by the geography of North America and by the general movement of air from west to east. The Pacific Coast is cool and fairly dry in summer but mild, cloudy and wet in winter. Interior British Columbia has climates varying more with altitude than latitude: wet windward mountain slopes with heavy snows in winter, dry rainshadow valleys, hot in summer, and high plateaus with marked day to night temperature contrasts. Interior Canada, from the Rocky Mountains to the Great Lakes, has a continental-type climate with long cold winters, short but warm summers and scanty precipitation. Southern portions of Ontario and Quebec have a humid climate with cold winters, hot summers and generally ample precipitation all year. The Atlantic provinces have a humid continental-type climate although in the immediate coastal areas there is a marked maritime effect. On the northern islands, along the Arctic Coast and around Hudson Bay, arctic conditions persist, with long frigid winters and only a few months with temperatures averaging above freezing. Precipitation is light in the tundra area north of the treeline. Between the arctic and southern climates, boreal Canada has a transitional type climate with bitter long winters but appreciable summer periods. Precipitation is light in the West, but heavier in the Ungava Peninsula.

Climatic data. Some climatic detail of individual provinces and territories is given in Section 1.1.1, Regional geography. Temperature and precipitation data for various districts are shown in Table 1.7.

1.5 Time zones

Canada has six time zones. The most easterly, Newfoundland standard time, is three hours and 30 minutes behind Coordinated Universal Time

(UTC), and the most westerly, Pacific standard time, is eight hours behind UTC. From east to west, the remaining zones are called Atlantic, Eastern, Central and Mountain.

Standard Time, adopted at a world conference at Washington, DC in 1884, sets the number of time zones in the world at 24, each zone ideally extending over 1/24th of the surface of the earth and including all the territory between two meridians 15° of longitude apart. In practice, the zone boundaries are quite irregular for geographic and political reasons. UTC is the time of the zone centred on the zero meridian through Greenwich, England. Each of the other time zones is a definite number of hours ahead of or behind UTC to a total of 12 hours, at which limit the international date-line runs roughly north-south through the mid-Pacific.

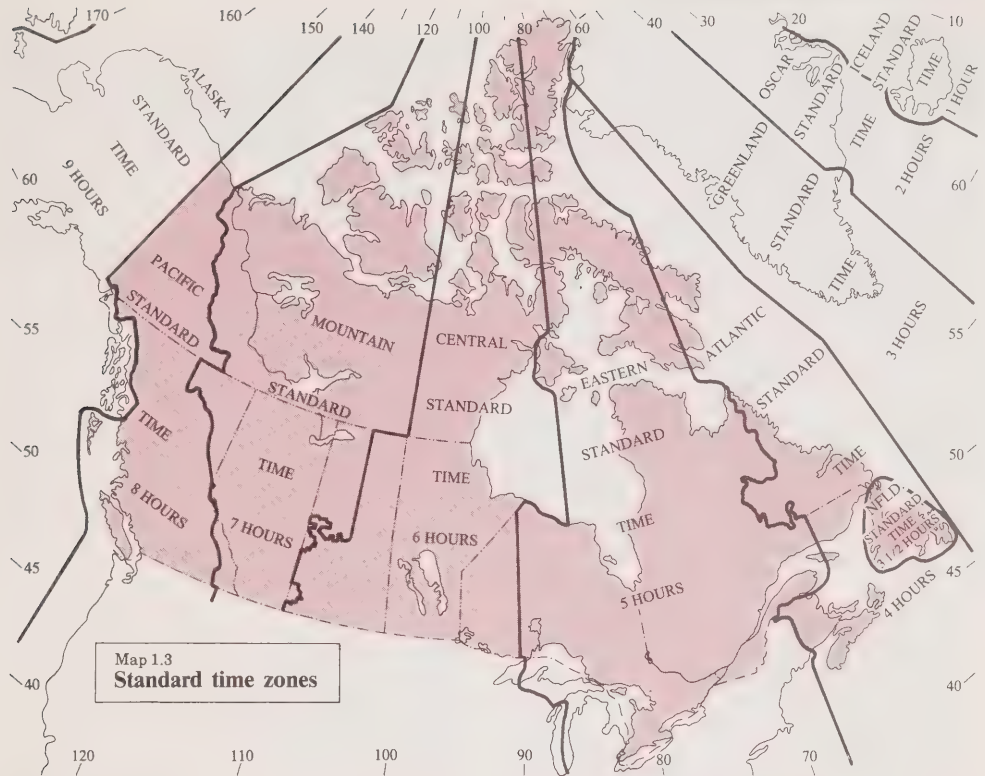
Legal authority for the time zones. Time in Canada has been of provincial rather than federal jurisdiction. Each of the provinces and territories has enacted laws governing standard time and these laws determine the time zone boundaries. Lines of communication, however, have sometimes caused communities near the boundary of a time zone to observe the time of the adjacent zone, with or without amendments to provincial legislation. Official time for federal purposes is the responsibility of the National Research Council of Canada (NRC).

Based on atomic clocks, Canada's time is established by the NRC with a precision of one hundred-millionth of a second per day, and coordination with other countries is maintained to the same precision through the Bureau International des Poids et Mesures in Paris.

Daylight saving time. The provinces have legislated provincial adoption (or rejection) of daylight saving time. By general agreement, daylight saving time set at one hour earlier than standard time is in force from the first Sunday in April until the last Sunday in October throughout Canada, except in most of the province of Saskatchewan. Previous to April 1987, daylight saving time began the last Sunday in April.

1.6 Land use

Environment Canada is responsible for administering a federal policy on land use which provides guidelines to federal departments and agencies on the use and management of their land. Analyses are carried out on the sustainability of current land-use patterns and the impact of federal policies and programs on land resources. Studies have investigated agricultural land-use change, mining



and the environment, planning land for natural heritage, and land/water planning.

Under federal-provincial agreements, the Canada Land Inventory (CLI) was developed to classify lands according to their capabilities for agriculture, forestry, recreation, wildlife and sport fishing. These data, used for regional planning, have been entered into a computerized Canada Land Data System (CLDS). More than 3,000 CLI maps are available, as well as Census data, information on federal land holdings, watershed boundaries and ecological land data. The maps and data provide a basis for the analysis of options for land-use planning and management.

1.7 Heritage resources

1.7.1 Federal parks

National parks. Canada's national parks system, encompassing more than 180 000 km², is one of the largest in the world.

In 1885 the Canadian government reserved from private ownership the mineral hot springs of Sulphur Mountain in what is now Banff National Park. Two years later this reserve was extended and named Rocky Mountains Park, the first federal

park in Canada. At present, there is at least one national park in each province and territory.

About 20 million visits a year are now recorded in the national parks. Details of the parks with their description, size and location are given in Table 1.8.

To protect outstanding areas of the Canadian land and seascapes which are representative of their physical, biological and oceanographic characteristics, 39 terrestrial regions and 29 marine regions have been identified, with the objective of establishing a national park in each of these natural regions. There are now 22 terrestrial regions and 2 marine regions represented in the parks system.

South Moresby/Gwaii Haanas Agreement. Following negotiations with British Columbia, a federal/provincial agreement was signed in July 1988 to establish South Moresby/Gwaii Haanas National Park Reserve. The Agreement provides for the establishment of a South Moresby/Gwaii Haanas National Marine Park Reserve within five years.

National marine parks. Canada is bounded by three oceans and has the largest volume of freshwater among all countries of the world. Extension of the national parks system to represent Pacific, Arctic, Atlantic and Great Lakes environments

is the objective of the National Marine Parks Policy. Under a 1987 agreement with Ontario, Fathom Five National Marine Park will become Canada's first true national marine park. Pacific Rim National Park Reserve has a significant marine component. Establishment of another marine park in the Saguenay area of Quebec may be considered in the near future.

National historic parks and sites. National historic parks and sites commemorate persons, places and events of major significance in Canada's historical development.

The National Parks Act of 1930 provided that any land may be set apart to commemorate a historic event, or preserve any historic landmark or any object of historic, prehistoric or scientific interest of national importance. The historic sites and monuments board may recommend that sites, buildings and other structures of national importance be developed as national historic parks or historic sites or commemorated by the erection of plaques or distinctive monuments.

The National Historic Parks and Sites Branch has been instrumental in creating 80 national historic parks and major sites, and in commemorating with plaques more than 1,000 persons and events of national (as opposed to local or regional) significance. Negotiations are conducted with provinces for acquiring other sites. The branch has entered into cost-sharing agreements with provincial and municipal governments and with incorporated non-profit societies for acquiring and restoring architecturally or historically significant buildings and structures on the understanding that the other party will pay the balance of acquisition and restoration costs and will maintain the buildings in perpetuity. In recent years, approximately 5 million visits have been recorded annually at Canada's national historic parks and sites.

Heritage rivers. Several provinces and the two territories are participating with the federal government in a co-operative program to give national recognition to rivers that are significant examples of the natural environment; have played an important role in history; or offer outstanding recreational opportunities. The program ensures that the natural, historic and recreational values of these rivers will be protected through long-term management plans. Several rivers have been nominated to be designated as Canadian Heritage Rivers. In June 1987, Quebec joined the Canadian Heritage Rivers System and nominated the Jacques Cartier River; nominations were also accepted for the Seal River in Manitoba and the Thirty Mile River in the Yukon. The Bloodvein River in

Manitoba and the Mattawa River in Ontario were proclaimed as Canadian Heritage Rivers. In total, 15 rivers from across the country have been nominated to the system; six of these rivers have been designated as Canadian Heritage Rivers.

Heritage canals. The Rideau-Trent-Severn waterway exemplifies the importance of heritage canals as recreational waterways which emphasize not only navigation but also visitor participation. Heritage canals illustrate both historical development and early engineering technology.

World heritage sites. Canada is one of 100 nations that have adhered to the UNESCO World Heritage Convention to identify and protect cultural and natural properties throughout the world considered to be of outstanding universal value. Ten Canadian sites are on the world heritage list: L'Anse aux Meadows National Park, Nfld.; Dinosaur Provincial Park and Head-Smashed-In Buffalo Jump, Alta.; Anthony Island (South Moresby), BC; Kluane National Park, Yukon; Nahanni National Park, NWT; Wood Buffalo National Park, NWT-Alta.; Canadian Rocky Mountains National Parks, Alta.-BC; the Historic District of Quebec City; and Gros Morne National Park, Nfld.

1.7.2 Heritage Canada Foundation

Created in 1973 as a charitable, non-profit organization, Heritage Canada supports a national movement for heritage awareness and maintenance, and a sense of continuity in Canadian communities. It promotes the collaborative management of change in the physical and ethnological environment through the activities of its three main departments: networking, marketing and demonstration.

The Heritage Canada Foundation holds in trust an endowment fund of \$13.8 million provided by the federal government. It operates on the investment income of this endowment but must also solicit funds from the private and public sectors to maintain its programs.

Heritage Canada publishes the *Canadian Heritage* magazine and co-sponsors, with the Conseil des monuments et sites du Québec, the publication of *Continuité* magazine. It also administers a national preservation awards program.

1.7.3 Provincial parks

All provincial governments have established parks within their boundaries. Some are wilderness areas set aside so that portions of the country might be retained in their natural state. Most of them, however, are smaller areas of scenic interest, easily accessible and equipped or slated for future

development as recreational parks with camping and picnic facilities. (For details see Table 1.9.)

Newfoundland. The first park was established in 1954 in western Newfoundland. Then camping and picnicking areas were developed along the Trans-Canada Highway. Later parks were extended to outlying parts along the coast. The system includes natural environment parks and outdoor recreation parks, which have camping and day-use facilities. Natural scenic attraction parks provide viewing points and day-use facilities. Wilderness and ecological reserves preserve and protect significant lands and features; waterway parks and park reserves protect lands for future use.

Prince Edward Island. The provincial park system is a diversified network of 31 unique parks. Ranging in size from simple picnic areas to large resort complexes, the parks are mostly situated along the coast and provide excellent beaches. All parks are easily accessible and several offer organized recreation and interpretive programs.

Nova Scotia. The provincial parks system started in the late 1950s with roadside sites. This has expanded to overnight campgrounds, day-use picnic and roadside parks, day-use beach parks and wildlife parks. Many of the parks have facilities designed to meet the needs of the handicapped and most of the parks are easily accessible from main highways.

New Brunswick. The provincial system includes recreational parks, picnic parks, campgrounds, and beach and resource parks. McGaw Hill winter park, near St. Stephen, is the newest park — downhill skiing, cross-country skiing, snowmobiling and sleigh rides are offered in the area. Several parks have organized activity and interpretation programs. Sugarloaf, Mactaquac and Mount Carleton parks are open year-round.

Quebec. The Quebec government administers two large park systems: conservation parks and wildlife reserves. There are also a number of recreational and tourism facilities. Depending on the type of park, a wide range of activities and services are available to visitors.

Ontario. The provincial system, begun in 1893, has 270 parks; features an extraordinary variety of landscapes and resources; and provides countless recreational opportunities. Algonquin, the first provincial park, continues to be world renown. Petroglyphs contains the largest concentration of prehistoric Indian rock carvings in Canada; Ouimet is the grand canyon of the North; Quetico offers one of the best lake canoeing areas in North America; and Sandbanks features an extensive freshwater dune system. The Mattawa

River offers the experience of paddling the same waters as the voyageurs.

Manitoba. The provincial system consists of 9 natural parks, 10 heritage parks, 1 wilderness park, 4 special-use parks, 39 recreation parks and 76 wayside parks. Some of the recreation and wayside parks are operated privately, under leases from the Department of Natural Resources.

Saskatchewan. In 1931 Duck Mountain, Cypress Hills and Moose Mountain became the first provincial parks. Now parks and recreation sites represent all ecological segments, classified as wilderness, natural environment or recreation. The social importance of outdoor recreation and heritage appreciation is reflected in regional parks designed for recreational use and historic parks as monuments to early trade, conflict and settlement.

Alberta. The Alberta Provincial Park System established its first park, Aspen Beach Provincial Park, in 1932. It has since expanded to include 61 provincial parks, 48 provincial recreation areas, 3 wilderness areas, 11 ecological reserves and 2 integrated-use areas. The major provincial parks include Cypress Hills, Lesser Slave Lake, Dinosaur, Writing-On-Stone and Peter Lougheed. Other important components of the provincial outdoor recreation and conservation system are the large Wilmore Wilderness Park and several forest land-use zones throughout the eastern slopes of the Rocky Mountains which supply multi-use recreation opportunities.

British Columbia has the largest number of provincial parks among the provinces. The system began in 1911 with Strathcona Park in central Vancouver Island and has expanded to include wilderness areas, camping and picnicking sites, downhill and cross-country ski areas, a marine park system, a canoe circuit, wildlife sanctuaries, and outstanding examples of the province's physical features.

1.7.4 The National Capital Region

The National Capital Region, with a population of approximately 715,000, is an area of 4662 km², extending around the two core cities of Ottawa and Hull. It includes 27 municipal jurisdictions and two important wilderness and recreational areas: Gatineau Park (25 600 ha), stretching to the north and west of Hull; and the Greenbelt (17 600 ha), encircling Ottawa to the west, south and east. The meeting of three rivers, the Ottawa, Rideau and Gatineau, as well as the Rideau Canal, have been major factors in determining the development of Canada's capital region over the years.

The National Capital Commission (NCC) protects and preserves Canada's national treasures; creates a meeting-place for Canadians; and presents the unique features of Canada's National Capital Region to Canadians and to the world. The NCC organizes national celebrations such as Canada Day, New Year's Eve on Parliament Hill, Christmas Lights Across Canada and the 10-day winter festival, Winterlude. With the help of municipal, regional, provincial and federal partners in the region, the NCC preserves the heritage and presents the unique treasures of Canada's capital.

Gatineau Park is a forest and wildlife reserve which lies north of the capital. With 40 km of parkway, magnificent lookouts, hundreds of lakes and beaches, picnic areas and historic treasures such as the Mackenzie King Estate, the park is enjoyed by over one million visitors a year.

1.8 Environment

Environment Canada has a mandate to foster harmony between society and the environment for the economic, social and cultural benefits of present and future generations of Canadians.

1.8.1 Environmental quality

In its strategic planning, the department has identified the following priorities.

Toxic substances released into the environment, especially if persistent, can have a cumulative effect on all living things, including humans. The department is undertaking to identify threats as early as feasible. It has proposed that responsibility should be shared among governments and actual or potential polluters, that action should be taken to prevent or mitigate adverse consequences, and that public consultations should be held on the environmental and socio-economic trade-offs in using polluting substances. The Canadian Environmental Protection Act which received Royal Assent and proclamation on June 28, 1988, consolidates the Environmental Contaminants Act, the Canada Water Act, Part III, the Clean Air Act, the Ocean Dumping Control Act, and Section 6(2) of the Department of the Environment Act (1979). The new act upgrades the penalties for a breach of the toxic chemicals provisions. The Minister is endowed with powers to recall chemicals, products, etc., which he deems to be unsafe. These and other provisions make the act one of the most advanced of its kind in the world.

Acid rain is caused by emissions of sulphur dioxide and nitrogen oxide in Canada and the United States. To solve Canada's acid rain problem, deposition of wet sulphate in all vulnerable areas

in Eastern Canada must be reduced to less than 20 kilograms per hectare a year. Achieving this environmental objective requires that total sulphur dioxide emissions east of the Saskatchewan/Manitoba border be reduced to 2.3 million tonnes (50% of the 1980 level) and that the transboundary flow of sulphur dioxide from the US into Canada be reduced to about 2 million tonnes a year (50% of the 1980 level). The federal government and the seven eastern provinces have agreed to cut emissions by 50% by 1994 at the latest. At the March 1986 summit meeting of President Reagan and Prime Minister Mulroney, the President endorsed the findings and conclusions of the Special Envoys on Acid Rain. These included implementation of a five-year \$5 billion program in the US to develop control technology and the establishment of a bilateral, advisory and consultative group on transboundary air pollution.

Water resources management may become as significant an issue in the 1990s as energy has been in recent years. Elements of concern include: growing imbalances between water supply and demand especially on the Prairies; inadequate water quality in various parts of the country; proposals for major diversions in Canada and export to the United States; and conflicts in water use plans among provinces and territories. The final report of the Inquiry on Federal Water Policy — the first comprehensive assessment of the government's role in managing water resources — was published in 1985. Following extensive consultations on the report's recommendations, a new federal water policy was released in 1987, with emphasis placed on the role of realistic pricing to regulate growing demands and wasteful uses of water. In 1988, the federal Minister of Environment tabled in Parliament Bill C-156, the Canada Water Preservation Act, to prohibit large-scale export of water from Canada.

Land resources. Increased demands for renewable resources including forestry and agricultural products make it necessary to maintain land productivity and the related resource base. Issues are multiple land use, possible degradation of soil quality and loss of wildlife habitat, increasing soil erosion and water supply considerations, and land-use demands from urbanization.

Climate change. The burning of fossil fuels, deforestation, land-use changes and industrial processes are causing increases in the concentrations of greenhouse gases in the atmosphere. The most abundant of these climate controlling gases, carbon dioxide, has increased by about 25% over the past several centuries and is now rising at 4% per decade.

Some of the other greenhouse gases, although of much lower concentrations, are more potent and are rising even more rapidly (5-6% per year for chlorofluorocarbons). Collectively, increases in these gases are likely to result in unprecedented and perhaps irreversible global climate warming within the next few decades to half-century, accompanied by major shifts in precipitation and hence vegetation patterns. For Canada, primary concerns are with respect to the potential for dryer climate conditions in the south, affecting agriculture, forest ecozones and fire risks, water supply and quality, hydro power and navigation, and the risks of coastal inundations due to rising sea levels. More positive implications include longer, warmer growing seasons, reduced ice cover in navigable waters, and reduced requirements for space heating in winter. A recent world conference held in Toronto, in June 1988, concluded that seriousness of the threat of climate change is second only to that of global nuclear war and that the world community must act now. Canada is already investigating the implications of climate change through its Canadian climate program, and is now developing an interdepartmental action plan to respond to the recommendations of the Toronto conference.

Waterfowl protection. A plan to manage North American waterfowl, the North American Waterfowl Management Plan (NAWMP), was signed by Canada's Federal Environment Minister, Thomas McMillan and the US Secretary of the Interior, Donald Hodel in May 1986. The plan proposes a far-reaching \$1.5 billion management agreement to be undertaken jointly by private and public interests in Canada and the United States to bring seriously declining waterfowl populations back to the average annual fall migration level in the 1970s of 100 million birds.

The objectives of NAWMP are to be achieved over a 15-year period. It will seek to restore the breeding habitat of mallard and pintail ducks in the mid-continental region by protecting and improving 3 million acres of duck habitat in Canada and the United States. Additional habitat will be protected in the lower Mississippi River and Gulf Coast region, and the Central Valley of California. Other projects will protect black duck habitat in Eastern Canada and the East Coast of the United States. The first waterfowl habitat enhancement and protection project in North America, under NAWMP, was established in the Quill Lakes area of Saskatchewan in 1988.

Sustainable development. The maintenance of a strong economy is directly related to the health of the environment. In Canada, over 40% of the Gross

Domestic Product, 32% of the labour force and 52% of exports can be directly related to economic activities which are dependent on the environment. The declining quality of the environment arising from intense resource use and poor waste management, however, is constraining economic activities and posing serious risks to health and well-being.

Following the recommendations of the World Commission on Environment and Development, the federal government is committed to the promotion of activities which support sustainable development, those which enhance economic productivity and, at the same time, ensure the maintenance of a healthy environment for future generations. In support of this, the federal Cabinet approved the Environmental Quality Policy Framework to strengthen and streamline federal environmental quality actions, and emphasize the need to incorporate environmental decisions into economic planning and decision making.

The department's role in promoting sustainable development by Canadians and their governments includes the establishment of conservation strategies as blueprints for sustainable development; building a sound environmental knowledge base; providing information and advice to support environmentally sound development; influencing federal programs so that environmental objectives are achieved along with economic measures; and developing policies, methods and tools to help in the realization of sustainable development.

State of the environment reporting. The Federal Environmental Quality Policy Framework, approved in 1986, gave Environment Canada and Statistics Canada the authority and terms of reference to establish jointly a State of the Environment (SOE) reporting system. In June 1988, the newly proclaimed Canadian Environmental Protection Act gave SOE reporting its legislative mandate.

The role of systematic state of the environment reporting is to improve and provide open access to information on the status and trends, and their significance, of environmental quality and natural resource use; provide measures of progress in dealing with environmental problems; identify emerging issues; and encourage the sustainable use of natural resources. Key functions that have been identified are the preparation of a national report every five years; preparation of reports and fact sheets on high profile environmental issues; provision of guidance and assistance to federal departments in their preparation of sectoral reports and information; and development and maintenance of a publicly accessible SOE data base in co-operation with stakeholders.

National Parks Act. Amendments to the National Parks Act were proclaimed in September 1988. Among the major changes brought about by the amendments were significant increases in the fines and penalties for poaching, the authority to establish and manage National Marine Parks, a legislative requirement to prepare park management plans, and the establishment of Ellesmere Island National Park Reserve.

1.8.2 Environmental assessment

The Environmental Assessment and Review Process (EARP), administered by the Federal Environmental Assessment Review Office, is used to determine the potential environmental impacts of proposals that require a federal government decision.

EARP is applied by government departments to those proposals that they will undertake or fund, or that will take place on federal lands, including offshore, or will affect some area of federal

responsibility. It deals with the physical, biological, and directly related social effects of these proposals.

An initial assessment is made early in planning before irrevocable decisions are taken. This determines if a proposal may proceed with or without mitigation, be abandoned, or be referred to the Minister of the Environment for a public review by an independent panel appointed by the Minister. This review is a detailed examination with many opportunities for public participation, including public hearings. The panel determines and studies the potential environmental and directly related social impacts of the proposal and produces a report for the Environment Minister and the Minister who initiated the review. The report is made public and the Minister who initiated the review decides the extent to which the recommendations are accepted before the proposal proceeds.

Sources

- 1.1 - 1.1.3, 1.2.1, 1.2.4 - 1.2.5 Surveys, Mapping and Remote Sensing, Department of Energy, Mines and Resources.
- 1.2.2, 1.4, 1.6, 1.8 - 1.8.1 Communications Directorate, Environment Canada.
- 1.2.3 Communications Directorate, Department of Fisheries and Oceans.
- 1.3 Geoscience Information Division, Department of Energy, Mines and Resources.
- 1.5 Time and Length Standards, National Research Council.
- 1.7.1 Canadian Parks Services, Information Branch, Environment Canada.
- 1.7.2 Heritage Canada Foundation.
- 1.7.3 Supplied by the respective provincial government departments.
- 1.7.4 Public Activities Branch, National Capital Commission.
- 1.8.2 Federal Environmental Assessment Review Office.

FOR FURTHER READING

Selected publications from Statistics Canada

- Canada: A Portrait, biennial. 11-403. Previously Canada Handbook
- Historical Statistics of New Brunswick, 240 p., 1984. 11-608
- Human Activity and the Environment: A Statistical Compendium, 374 p., 1986. 11-509
- In the Footsteps of Jacques Cartier: 450 Years Later: A Statistical Portrait, 52 p., 1984. 11-606
- Toronto 150: Portrait of a Changing City, 126 p., 1984. 11-605
- Trois-Rivières: A Metropolitan Profile, 116 p., 1984. 11-607
- Maps, Census Divisions and Subdivisions, 1986 Census, 27 p., 1987. 99-115
- Maps, Census Metropolitan Areas and Census Agglomerations, 1986 Census, 298 p., 1987. 99-116
- 1986 Census Geography: A Historical Comparison, 51 p., 1988. 99-106
- Metropolitan Atlas Series, 1981 Census, 12 volumes, 1984. 99-919 to 99-930

More information about these publications is available from Statistics Canada. See Appendix F for a complete list of Statistics Canada offices.

TABLES

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not appropriate or not applicable
- nil or zero
- too small to be expressed
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estimate
- p

preliminary
- r

revised
- certain tables may not add due to rounding

1.1 Land and freshwater areas, by province

Province or territory	Land km ²	Freshwater km ²	Total km ²	Percentage of total area
Newfoundland ¹	371 690	34 030	405 720	4.1
Prince Edward Island	5 660	—	5 660	0.1
Nova Scotia	52 840	2 650	55 490	0.6
New Brunswick	72 090	1 350	73 440	0.7
Quebec	1 356 790	183 890	1 540 680	15.5
Ontario	891 190	177 390	1 068 580	10.7
Manitoba ¹	548 360	101 590	649 950	6.5
Saskatchewan ¹	570 700	81 630	652 330	6.5
Alberta	644 390	16 800	661 190	6.6
British Columbia ¹	929 730	18 070	947 800	9.5
Yukon ¹	478 970	4 480	483 450	4.8
Northwest Territories ¹	3 293 020	133 300	3 426 320	34.4
Canada	9 215 430	755 180	9 970 610	100.0

Note: All figures have been rounded to the nearest 10 to reflect their approximate nature.
¹ Recalculated figures 1981.

1.2 Principal heights in each province and territory, by range or region

Province and height	Elevation m	Province and height	Elevation m
NEWFOUNDLAND		ONTARIO	
Highest point		Highest point	
Torngat Mountains		Ishpatina Ridge	693
Mount Caubvick ¹	1 622	Ogidaki Mountain	665
Cirque Mountain	1 568	Batchawana Mountain	653
Mealy Mountains		Tip Top Mountain	640
Unnamed peak (53°37' 58°33')	1 176	Niagara Escarpment	
Kaumajet Mountains		Blue Mountains	541
Bishops Mire	1 113	Osler Bluff	526
Long Range Mountains		Caledon Mountain	427
Lewis Hills	814	MANITOBA	
Gros Morne	806	Highest point	
PRINCE EDWARD ISLAND		Baldy Mountain	832
Highest point		Highest point in Porcupine Hills	823
Queen's County (46°20' 63°27')	142	Riding Mountain	610
NOVA SCOTIA		SASKATCHEWAN	
Highest point		Highest point	
Cape Breton (46°42' 60°36')	532	Cypress Hills	1 468
NEW BRUNSWICK		Wood Mountain	1 013
Highest point		Vermilion Hills	785
Mount Carleton	820	ALBERTA	
Wilkinson Mountain	785	Highest point on Alta.-BC boundary	
QUEBEC		Rocky Mountains	
Highest point		Mount Columbia	3 747
Monts Torngat		North Twin	3 733
Mount D'Iberville	1 622	Mount Alberta	3 620
Les Appalaches		Mount Assiniboine (on Alta.-BC boundary)	3 618
Mont Jacques-Cartier	1 268	Mount Forbes	3 612
Mont Gosford	1 192	South Twin	3 581
Mont Richardson	1 185	Mount Temple	3 547
Mont Mégantic	1 105	Mount Brazeau	3 525
Les Laurentides		Snow Dome (on Alta.-BC boundary)	3 520
Unnamed Peak (47°19' 70°50')	1 166	Mount Lyell (on Alta.-BC boundary)	3 504
Mont Tremblant	968	Mount Athabasca	3 491
Mont Sainte-Anne	800	Mount King Edward (on Alta.-BC boundary)	3 490
Mont Sir-Wilfrid	783	Mount Kitchener	3 490
Monts Otish		BRITISH COLUMBIA	
Unamed Peak (52°19' 71°27')	1 135	Highest point on Alaska-BC boundary	
Collines Mon:érégiennes		St. Elias Mountains	
Mont Brome	533	Fairweather Mountain	4 663

1.2 Principal heights in each province and territory, by range or region (concluded)

Province and height	Elevation m	Province and height	Elevation m
BRITISH COLUMBIA (concluded)		YUKON (concluded)	
Coast Mountains		Mount Steele	5 067
Mount Waddington	4 012	Mount Wood	4 838
Rocky Mountains		Mount Vancouver (on Alaska-Yukon boundary)	4 785
Mount Robson	3 954	Mount Macaulay	4 663
Mount Columbia (on Alta.-BC boundary)	3 747	Mount Hubbard (on Alaska-Yukon boundary)	4 577
Mount Clemenceau	3 642		
Mount Assiniboine (on Alta.-BC boundary)	3 618	NORTHWEST TERRITORIES	
Mount Goodsir: North Tower	3 581	Highest point	
Mount Goodsir: South Tower	3 520	Mackenzie Mountains	
Snow Dome (on Alta.-BC boundary)	3 520	Unnamed peak (61°52' 127°42')	2 773
Mount Bryce	3 507	Mount Sir James MacBrien	2 762
Selkirk Mountains		Ellesmere Island	
Mount Sir Sandford	3 522	Barbeau Peak	2 616
Columbia (Cariboo) Mountains		Baffin Island	
Mount Sir Wilfrid Laurier	3 520	Mount Odin	2 147
Purcell Mountains		Devon Island	
Mount Farnham	3 481	Summit of Ice Cap	1 920
Monashee Mountains		Franklin Mountains	
Torii Mountain	3 429	Cap Mountain	1 577
		Mount Clark	1 462
YUKON		Pointed Mountain	1 405
Highest point in Canada		Nahanni Butte	1 396
St. Elias Mountains		Banks Island	
Mount Logan	5 951	Durham Heights	732
Mount St. Elias (on Alaska-Yukon boundary)	5 489	Victoria Island	
Mount Lucania	5 226	Unnamed peak	655
King Peak	5 173		

¹ Mount Caubick is also known as Mont D'Iberville.

1.3 Elevations, areas and depths of the Great Lakes

Lake	Elevation ¹ m	Length km	Breadth km	Maximum depth m	Total area km ²	Area on Canadian side of boundary km ²
Superior	184	563	257	405	84 243	29 888
Michigan	176	494	190	281	57 757	—
Huron	177	332	295	229	63 096	39 473
Erie	174	388	92	64	25 812	12 880
Ontario	75	311	85	244	19 001	10 388

¹ Long-term mean 1860-1972; International Great Lakes Datum, 1955.

1.4 Elevations and areas of principal lakes¹ (exceeding 600 km²)

Province and lake	Elevation m	Area ² km ²	Province and lake	Elevation m	Area ² km ²
NEWFOUNDLAND AND LABRADOR			ONTARIO (concluded)		
Melville Lake	tidal	3 069	Lac Seul	357	1 657
Smallwood Reservoir	471	6 527	Lake Simcoe	219	744
NOVA SCOTIA			Lake St. Clair (total 1 210)		
Bras d'Or	tidal	1 099	Canadian part 490	175	490
QUEBEC			MANITOBA		
Lac Bienville	426	1 249	Cedar	253	1 353
Réservoir Cabonga	361	677	Cross	207	755
Lac à l'Eau-Claire	241	1 383	Gods	178	1 151
Réservoir Gouin	404	1 570	Island	227	1 223
Réservoir Manicouagan	360	1 942	Manitoba	248	4 624
Lac Minto	168	761	Playgreen	217	657
Lac Mistassini	372	2 335	Southern Indian	254	2 247
Réservoir Pimpuacan	396	978	Lake Winnipeg	217	24 387
Lac Saint-Jean	98	1 003	Lake Winnipegosis	254	5 374
ONTARIO			SASKATCHEWAN		
Abitibi Lake ²	265	931	Lake Athabasca ²	213	7 935
Big Trout	213	661	Cree	487	1 434
Lake of the Woods ² (total 4 472)			Doré	459	640
Canadian part 3 150	323	3 150	Lac La Ronge	364	1 413
Lake Nipigon	320	4 848	Peter Pond	421	778
Lake Nipissing	196	832	Reindeer ²	337	6 650
Rainy (total 932)			Wollaston	398	2 681
Canadian part 741	338	741			

1.4 Elevations and areas of principal lakes¹ (exceeding 600 km²) (concluded)

Province and lake	Elevation m	Area km ²	Province and lake	Elevation m	Area km ²
ALBERTA			NORTHWEST TERRITORIES (concluded)		
Lake Claire	213	1 436	Garry	148	976
Lesser Slave	577	1 168	Great Bear	156	31 328
BRITISH COLUMBIA			Great Slave	156	28 568
Atlin ²	668	775	Hottah	180	918
Williston	671	1 761	Kamilukuak	266	638
NORTHWEST TERRITORIES			Kaminak	53	600
Aberdeen	80	1 100	Kasba	336	1 341
Amadjuak	113	3 115	Lac la Martre	265	1 776
Aylmer	375	847	MacKay	431	1 061
Baker	2	1 887	Napaktulik	381	1 080
Buffalo	265	612	Nettilling	30	5 542
Clinton-Colden	375	737	Nonacho	354	784
Contwoyto	564	957	Nueltin ²	278	2 279
Lac de Gras	396	633	Selwyn ²	375	701
Dubawnt	236	3 833	Tulemalu	398	717
Ennadai	311	681	Wholdaia	279	668
			Yathkyed	364	678
				140	1 449

Areas are given for mean water levels. All elevations are in metres above mean sea level.
¹ Excludes Great Lakes, see Table 1.3.
² Spans provincial or territorial boundary. Listed under province or territory containing larger portion. Area given is total area.

1.5 Lengths of principal rivers and their tributaries¹

Drainage basin and river	Length km	Drainage basin and river	Length km
FLOWING INTO THE PACIFIC OCEAN		FLOWING INTO HUDSON BAY	
Yukon (mouth to head of Nisutlin)	3 185	AND HUDSON STRAIT	
(International Boundary to head of Nisutlin)	1 149	Nelson (to head of Bow)	2 575
Porcupine	721	(to outlet of Lake Winnipeg)	644
Stewart	644	Saskatchewan (to head of Bow)	1 939
Pelly	608	South Saskatchewan (to head of Bow)	1 392
Teslin	393	Red Deer ²	724
White	265	Bow ²	587
Columbia (mouth to head of Columbia Lake)	2 000	Oldman ²	362
(International Boundary to head of Columbia Lake)	801	North Saskatchewan	1 287
Kootenay	780	Battle (to head of Pigeon Lake) ²	570
Kettle (to head of Holmes Lake) ²	336	Red (to head of Sheyenne)	877
Okanagan (to head of Okanagan Lake) ²	314	Assiniboine ²	1 070
Fraser	1 370	Winnipeg (to head of Firesteel)	813
Thompson (to head of North Thompson)	489	English	615
North Thompson	338	Fairford (to head of Manitoba Red Deer)	684
South Thompson (to head of Shuswap)	332	Churchill (to head of Churchill Lake)	1 609
Nechako (to head of Eutsuk Lake)	462	Beaver (to outlet of Beaver Lake) ²	491
Stuart (to head of Driftwood) ²	415	Severn (to head of Black Birch)	982
Skeena	579	Albany (to head of Cat)	982
Stikine	539	Thelon	904
Nass	380	Dubawnt	842
FLOWING INTO THE ARCTIC OCEAN		La Grande-Rivière (Fort George River)	893
Mackenzie (to head of Finlay)	4 241	Koksoak (to head of Caniapiscaw)	874
Peace (to head of Finlay)	1 923	Nottaway (via Bell to head of Mégiscane)	776
Smoky	492	Rupert (to head of Témiscamie)	763
Athabasca	1 231	Eastmain	756
Pembina ²	547	Attawapiskat (to head of Bow Lake)	748
Liard	1 115	Kazan (to head of Ennadai Lake)	732
South Nahanni	563	Grande rivière de la Baleine	724
Fort Nelson (to head of Sikanni Chief)	517	George	565
Petitot ²	404	Moose (to head of Mattagami)	547
Hay ²	702	Abitibi (to head of Louis Lake)	547
Peel (mouth of west Channel to head of Ogilvie)	684	Mattagami (to head of Minisinkwa Lake)	443
Arctic Red ²	499	Missinaibi	426
Slave (from Peace River to Great Slave Lake)	415	Harricana/Harricanaw	533
Fond du Lac (to outlet of Wollaston Lake)	277	Hayes	483
Back (to outlet of Muskox Lake) ²	974	Aux Feuilles	480
Coppermine ²	845	Winisk	475
Andersqn ²	692	Broadback	450
Horton ²	618	À la Baleine	428
		De Povungnituk	389
		Innuksuac ²	385
		Petite rivière de la Baleine ²	380

1.5 Lengths of principal rivers and their tributaries¹ (concluded)

Drainage basin and river	Length km	Drainage basin and river	Length km
FLOWING INTO HUDSON BAY AND HUDSON STRAIT (concluded)		FLOWING INTO THE ATLANTIC OCEAN (concluded)	
Arnaud (Payne)	377	Mistassini	298
Nastapoca ²	360	Chamouchouane	266
Kogaluc ²	304	Saint-Maurice	563
		Manicouagan (to head of Mouchalagane)	560
		Aux Outardes	499
FLOWING INTO THE ATLANTIC OCEAN		Romaine	496
St. Lawrence River	3 058	Betsiamites (to head of Manouanis)	444
Nipigon (to head of Ombabika)	209	Moisie	410
Spanish ²	338	St-Augustin	233
Trent (to head of Irondale) ²	402	Richelieu (to mouth of Lake Champlain)	171
Ottawa River	1 271	Churchill (to head of Ashuanipi)	856
Gatineau	386	Saint John	673
Du Lièvre ²	330	Du Petit-Mécatina	547
Saguenay (to head of Péribonca)	698	Natashquan	410
Péribonca	451		

¹ Mean annual discharge at mouth of confluence of 280 m³ and length greater than 100 km.² Mean annual discharge less than 280 m³ but length greater than 300 km.

1.6 Areas of major islands, by region

Region and island	Area km ²	Region and island	Area km ²
BAFFIN ISLAND		ARCTIC ISLANDS SOUTH OF QUEEN ELIZABETH ISLANDS (concluded)	
QUEEN ELIZABETH ISLANDS		Air Force	1 720
Ellesmere	196 236	Wales	1 137
Devon	55 247	Rowley	1 090
Axel Heiberg	43 178		
Melville	42 149	HUDSON BAY AND HUDSON STRAIT	
Bathurst	16 042	Southampton	41 214
Prince Patrick	15 848	Coats	5 498
Ellef Ringnes	11 295	Mansel	3 180
Cornwallis	6 996	Akimiski	3 001
Amund Ringnes	5 255	Flaherty	1 585
Mackenzie King	5 048	Nottingham	1 372
Borden	2 794	Resolution	1 015
Cornwall	2 258		
Eglinton	1 541	PACIFIC COAST	
Graham	1 378	Vancouver	31 285
Lougheed	1 308	Graham	6 361
Byam Martin	1 150	Moresby	2 608
Ile Vanier	1 126	Princess Royal	2 251
Cameron	1 059	Pitt	1 375
ARCTIC ISLANDS SOUTH OF QUEEN ELIZABETH ISLANDS		ATLANTIC COAST	
Victoria	217 291	Newfoundland and Labrador	
Banks	70 028	Newfoundland (main island)	108 860
Prince of Wales	33 339	Gulf of St. Lawrence	
Somerset	24 786	Cape Breton	10 311
King William	13 111	Anticosti	7 941
Bylot	11 067	Prince Edward	5 656
Prince Charles	9 521	Bay of Fundy	
Stefansson	4 463	Grand Manan	137
Richards	2 165		

1.7 High and low temperatures and precipitation data for typical stations in various districts

District and station	Temperatures (Celsius)					Precipitation		
	Mean Jan.	Mean July	Highest on record	Lowest on record	Av. dates of freezing temperatures (0°C or lower)	Total (all forms) mm	Snowfall cm	Av. number of days (all forms)
					Last in spring	First in autumn		
NEWFOUNDLAND								
Island								
Belle Isle	-9.6	9.3	22.8	-35.0	June 21	Sept. 29	898.8	161
Gander A	-6.2	16.5	35.6	-31.1	June 3	Oct. 7	1 130.1	213
Labrador								
Cartwright	-13.2	12.7	36.1	-37.8	June 19	Sept. 13	953.7	183
Goose A	-16.4	15.8	37.8	-39.4	June 5	Sept. 18	946.1	185

1.7 High and low temperatures and precipitation data for typical stations in various districts (concluded)

District and station	Temperatures (Celsius)						Precipitation		
	Mean Jan.	Mean July	Highest on record	Lowest on record	Av. dates of freezing temperatures (0°C or lower)		Total (all forms) mm	Snowfall cm	Av. number of days (all forms)
					Last in spring	First in autumn			
MARITIME PROVINCES									
Prince Edward Island									
Charlottetown A	-7.1	18.3	34.4	-28.1	May 16	Oct. 14	1 169.4	330.6	174
Nova Scotia									
Annapolis Royal	-4.0	18.1	32.8	-27.2	May 23	Sept. 29	1 279.9	254.3	157
Halifax	-3.1	18.2	34.4	-25.0	Apr. 30	Oct. 19	1 282.0	216.5	155
Sydney A	-4.7	17.7	35.0	-25.6	May 23	Oct. 14	1 399.9	317.9	186
New Brunswick									
Chatham A	-9.7	19.2	37.8	-35.0	June 27	Sept. 2	1 096.7	333.1	160
Grand Falls	-12.2	18.2	36.7	-43.3	June 22	Aug. 28	1 012.4	306.7	105
QUEBEC									
Northern									
Fort Chimo A	-23.3	11.4	32.2	-46.7	June 17	Sept. 3	504.2	245.2	163
Inoucdjouac (Port Harrison)	-24.5	8.3	30.0	-46.1	May 24	Sept. 19	386.5	144.2	139
Schefferville A	-22.8	12.6	31.7	-50.6	Apr. 19	Oct. 14	768.7	386.5	196
Southern									
Bagotville A	-15.8	17.9	36.1	-43.3	May 13	Sept. 28	921.9	346.1	191
Montreal McGill	-8.7	21.8	36.1	-33.9	May 12	Sept. 30	1 020.1	242.8	163
Quebec A	-12.1	19.1	35.6	-36.1	May 30	Sept. 12	1 174.0	343.4	175
Sherbrooke	-9.8	20.0	36.7	-41.1	June 7	Sept. 16	949.9	253.2	169
ONTARIO									
Northern									
Thunder Bay A	-15.4	17.6	37.2	-41.1	May 30	Sept. 12	711.8	213.0	138
Big Trout Lake	-24.5	16.0	35.6	-47.8	June 7	Sept. 16	580.8	213.9	161
Southern									
Parry Sound	-9.9	19.1	37.8	-41.1	May 17	Sept. 28	1 093.5	330.6	162
Toronto	-4.6	22.0	40.6	-32.8	Apr. 20	Oct. 29	800.5	139.2	134.0
PRAIRIE PROVINCES									
Manitoba									
The Pas A	-22.7	17.7	36.7	-49.4	May 24	Sept. 17	453.7	170.0	131
Winnipeg A	-19.3	19.6	40.6	-45.0	May 23	Sept. 22	525.5	125.5	120
Saskatchewan									
Regina A	-17.9	18.9	43.3	-50.0	May 24	Sept. 11	384.0	115.7	111
Saskatoon A	-19.3	18.5	40.0	-47.8	May 21	Sept. 16	348.8	113.1	108
Alberta									
Edmonton Ind. A	-15.0	17.4	34.4	-48.3	May 6	Sept. 24	466.1	135.7	124
Medicine Hat A	-12.6	19.9	42.2	-46.1	May 15	Sept. 22	347.9	125.5	91
BRITISH COLUMBIA									
Pacific Coast and Coastal Valleys									
Prince Rupert	1.7	13.3	32.2	-21.1	Apr. 22	Oct. 31	2 403.1	84.1	229
Victoria	4.1	15.4	35.0	-15.6	Apr. 8	Oct. 29	647.2	32.0	138
Southern Interior									
Princeton A	-7.9	17.8	41.7	-42.8	June 1	Sept. 14	344.5	167.5	115
Central Interior									
Barkerville	-10.7	12.1	35.6	-46.7	June 28	Aug. 16	1 043.9	538.4	177
McBride	-10.3	15.8	37.8	-46.7	June 9	Aug. 28	625.5	218.8	132
Northern Interior									
Fort Nelson A	-23.8	16.6	36.7	-51.7	May 25	Sept. 9	451.8	186.5	134
Smith River A	-24.5	14.1	33.3	-58.9	June 17	Aug. 11	481.0	203.2	146
YUKON									
Dawson	-30.7	15.6	35.0	-58.3	May 28	Aug. 28	306.1	137.1	114
Snag A	-30.4	14.0	31.7	-62.8	June 19	Aug. 10	338.5	154.7	122
Watson Lake A	-26.7	14.9	33.9	-58.9	June 2	Sept. 4	425.2	228.8	153
Whitehorse A	-20.7	14.1	34.4	-52.2	June 8	Aug. 30	261.2	136.6	120
NORTHWEST TERRITORIES									
Mackenzie Basin									
Fort Good Hope	-31.3	16.3	34.4	-55.6	June 2	Aug. 21	281.9	131.6	97
Fort Simpson A	-28.2	16.6	35.0	-53.3	June 3	Aug. 21	355.1	151.0	118
Hay River A	-25.8	15.8	35.6	-48.3	June 2	Sept. 1	339.9	165.0	117
Barrens									
Baker Lake	-33.0	11.0	30.6	-50.6	June 23	Aug. 30	234.6	100.0	106
Chesterfield	-31.5	8.9	30.6	-51.1	June 27	Sept. 3	258.9	112.5	100
Coppermine	-30.1	9.7	32.2	-50.0	June 24	Aug. 23	202.3	100.7	109
Arctic Archipelago									
Clyde	-26.5	4.1	22.2	-46.8	July 13	July 19	206.4	168.9	97
Eureka	-36.4	5.4	19.4	-55.3	July 27	Aug. 3	64.0	44.1	55
Frobisher Bay A	-25.6	7.6	24.4	-45.6	June 28	Aug. 27	432.6	255.5	146
Mould Bay	-33.5	3.9	16.1	-53.9	July 11	July 19	93.1	71.9	78
Resolute A	-32.1	4.1	18.3	-52.2	July 10	July 20	131.4	83.8	96

A = Airport, Ind. A = Industrial Airport.

1.8 National parks by name and year established

Park and year established	Area km ²	Location	Description
Banff 1885	6 640.8	Western Alberta, on east slope of Rocky Mountains	Scenic mountain area, Banff and Lake Louise resorts. Mineral hot springs. Summer and winter sports. Commercial accommodation. Campgrounds.
Yoho 1886	1 313.1	Eastern British Columbia, on west slope of Rockies	Mountain peaks, waterfalls and lakes. Yoho and Kicking Horse valleys. Commercial accommodation. Campgrounds.
Glacier 1886	1 349.4	Eastern British Columbia in the Selkirk Mountains	Alpine region, towering peaks, glaciers and forests. Climbing, ski touring, camping.
Waterton Lakes 1895	525.8	Southern Alberta, adjoining Glacier Park in Montana	Mountainous area with peaks and lakes. Commercial accommodation. Campgrounds.
Jasper 1907	10 878.0	Western Alberta, on east slope of Rockies	1 000 km of trails. Icefields, lakes. Mineral hot springs. Summer and winter sports. Commercial accommodation. Campgrounds.
Elk Island 1913	194.3	Central Alberta	Fenced preserve with large herds of buffalo, deer, elk and moose. Summer and winter sports. Campgrounds.
Mount Revelstoke 1914	262.6	Eastern British Columbia, on west slope of Selkirks	Mountain-top plateau, alpine meadows and mountain lakes. No campgrounds.
St. Lawrence Islands 1914	4.1	St. Lawrence River between Brockville and Kingston, Ont.	Mainland area and 17 islands among the Thousand Islands. Accessible by boat from mainland points. Campgrounds.
Point Pelee 1918	15.5	On Lake Erie, south-western Ontario	Wildlife. Beaches, marsh area, southern flora, nature trails. Staging ground for migratory birds.
Kootenay 1920	1 377.9	Southeast British Columbia, on west slope of Rockies	Includes section of Banff-Windermere Highway. Broad valleys, deep canyons, mineral hot springs. Commercial accommodation nearby. Campgrounds.
Wood Buffalo 1922	44 807.0	Alberta and Northwest Territories	Forests and open plains. Mainly a wildlife sanctuary. Largest herds of free roaming bison in world. Accessible from Fort Smith, NWT. Campgrounds.
Prince Albert 1927	3 874.6	Central Saskatchewan	Forest region. Lakes and streams. Summer and winter recreation. Commercial accommodation. Campgrounds.
Riding Mountain 1929	2 975.9	Southwest Manitoba	Wildlife sanctuary on escarpment. Lakes. Commercial accommodation. Campgrounds. Summer and winter recreation.
Georgian Bay Islands 1929	14.2	In Georgian Bay, near Honey Harbour, Ont.	Accessible by boat. Unusual geological formations on Flowerpot Island. Campgrounds. Picnic areas.
Cape Breton Highlands 1936	950.5	Northern Cape Breton Island, NS	Rugged Atlantic coastline. Fine seascapes. Commercial accommodation. Campgrounds.
Prince Edward Island 1937	18.1	North shore, Prince Edward Island	Tennis, golf, bathing beaches. Commercial accommodation. Campgrounds.
Fundy 1948	205.9	On Bay of Fundy in New Brunswick	Forested region, wildlife, rugged terrain. Commercial accommodation. Campgrounds. Winter and summer recreation.
Terra Nova 1957	396.5	On Bonavista Bay, Nfld. North of St. John's	Maritime area, rocky headlands and forests. Sport fishing. Commercial accommodation. Campgrounds.
Kejimikujik 1968	381.5	South-central Nova Scotia	Inland park. Lakes and rivers. Hiking, canoeing, campgrounds, swimming, interpretation program, picnic areas. Historic Micmac Indian petroglyphs.

1.8 National parks by name and year established (concluded)

Park and year established	Area km ²	Location	Description
Kouchibouguac 1969	225.3	On northern Northumberland Strait in New Brunswick	Maritime park with offshore sandbars. Boating. Fishing in streams, rivers, lakes and ocean. Cross-country skiing. Campgrounds.
Pacific Rim ¹ (Reserve) 1970	388.5	West coast of Vancouver Island, BC	Sandy beaches, islands, rain forests, lakes and lifesaving trail. Swimming, fishing and surfing. Campgrounds.
Forillon 1970	240.4	Gaspé Peninsula, Que.	Coastal area with rugged cliffs. Rolling, forested inland areas. Campgrounds.
La Mauricie 1970	543.9	Near Trois-Rivières, Que.	Heavily-wooded section of Laurentian Mountains. Many lakes. Fishing. Campgrounds.
Gros Morne ¹ 1970	1 942.5	West coast of Newfoundland	Rugged coastal area. Fjord-like lakes, forests, waterfalls. Fishing. Campgrounds.
Pukaskwa ¹ 1971	1 877.8	North shore of Lake Superior near Marathon, Ont.	Part of the Precambrian Shield. Wilderness area, rugged lake shore. Rivers, streams and lakes.
Kluane (Reserve) 1972	22 015.9	West of Whitehorse, Yukon	Glaciers and mountains. Mount Logan, Canada's highest peak. Fishing. World heritage site. Campgrounds.
Nahanni (Reserve) 1972	4 765.0	Northwest Territories	Accessible by boat or charter aircraft. Hot springs, canyons, waterfalls, wilderness. World heritage site.
Auyuittuq (Reserve) 1972	21 471.0	Baffin Island	Fjords, mountains, glaciers. Winter and summer activities. Campgrounds.
Grasslands ¹ 1981	906.5	Saskatchewan	Only protected example of uncultivated short grass prairie, badlands, wildlife. No visitor facilities will be available for several years.
Mingan Archipelago (Reserve) 1984	150.7	Quebec	Rare birds and flora. Unique rock formations.
Northern Yukon 1984	10 168.4	Yukon	Undeveloped wilderness. Important animal habitat.
Bruce Peninsula ¹ 1987	142.0	Ontario	Striking geological features, Niagara Escarpment and flowerpot formations. Numerous species of orchids and ferns.
Fathom Five ¹ 1987	117.0	Ontario	Diving, clear water. Historic shipwrecks.
South Moresby 1988	1 470.0	Queen Charlotte Islands, BC	Fragile wilderness area. Centuries old forests. Natural hot springs. Abundant variety of seabirds.
Ellesmere Island (Reserve) 1988	39 500.0	Northwest Territories	Northernmost lands in Canada. Habitat for musk-ox, arctic hare.

¹ Agreements have been signed but the parks have not yet been proclaimed under the National Parks Act.

1.9 Provincial parks, by province

Province and number of parks	Total area (developed area) km ²	Type of park	Accommodation ¹ and facilities	Activities ¹	Camping parks, 1988	
					No.	Rates
Newfoundland and Labrador (82)	1 497.2	Natural environment Outdoor recreation Natural scenic attractions Wilderness and ecological reserves Waterway parks Park reserves	Picnic and camping facilities – picnic tables – drinking water – pit toilets – beaches – change houses – fireplaces – firewood – trailer dumping stations – boat launches – playgrounds	Swimming Boating Visitor centres Interpretive programs Winter camping Cross-country skiing Nature trails Group camping	41	\$2.00 daily permit \$10.00 yearly permit \$6.00 camping per day \$8.00 – \$9.00 electricity \$35.00 weekly camping \$250.00 seasonal camping

1.9 Provincial parks, by province (continued)

Province and number of parks	Total area (developed area) km ²	Type of park	Accommodation ¹ and facilities	Activities ¹	Camping parks, 1988	
					No.	Rates
Prince Edward Island (31)	15 (9)	Campgrounds Resorts Beaches Picnic Roadside rest sites Heritage	Mooring facilities Resorts Picnic sites Sandy beaches Campgrounds Serviced tent and trailer sites Marinas Canteens Supervised beaches (7 parks)	Swimming Golfing Tennis Board sailing Canoeing Interpretive programs Camping Skiing - cross-country - downhill Recreation programs	14	\$8.50 - \$12.00 a night no fee for day visits 25% discount for full season credit cards reservations
Nova Scotia (122)	243 (124)	Campgrounds Picnic Beach Roadside rest sites Wildlife Historic	Day-use picnic Day-use beach Campgrounds - tables - water - pit privies - trailer sanitation stations Handicap accessible (29 parks) (5 campgrounds)	Swimming Picnicking Camping Hiking Interpretive programs Angling Canoeing	21	\$7.00 resident seniors - no charge no charge for day-use
New Brunswick (48)	249 (45)	Recreation Picnic Campgrounds Beach Resource	Lodge Marinas Campgrounds - tables - potable water - electricity - trailer sanitation stations - washrooms/ comfort stations	Swimming Boating Camping Golfing Interpretive programs Tennis Hiking Windsurfing Snowshoeing Skiing - cross-country - downhill Skating Tobogganing Sleigh rides	..	\$6.50 - \$9.00 a night
Quebec (55)	70 000	Tourist Wilderness preserves Hunting and fishing preserves Salmon streams Campgrounds	Cabins Lodges Inns Campgrounds Mooring facilities	Hunting Fishing Hiking Swimming Canoeing Snowshoeing Skiing - cross-country - downhill Camping Mountain climbing Horseback riding Golfing Interpretive programs Visitor centres Nautical activities Art centres Cycling Picnicking Snowmobiling	30	\$8.50 - \$14.00 a night
Ontario (270)	63 618	Wilderness Natural environment Waterway Nature Reserve Recreation Historical	Picnic and camping areas - beaches - picnic tables - fireplaces - firewood - electricity - tested drinking water - washrooms/ comfort stations/showers - trailer sanitation stations	Visitor centres Outdoor exhibits Nature trails Swimming Boating Fishing Hiking Skiing - cross-country Board sailing Interpretive programs	95	\$9.25 - \$12.00 a night

1.9 Provincial parks, by province (concluded)

Province and number of parks	Total area (developed area) km ²	Type of park	Accommodation ¹ and facilities	Activities ¹	Camping parks, 1988	
					No.	Rates
Manitoba (139)	13 164	Wilderness Natural Heritage Recreation Special use Wayside	Hotels Motels Cabins Fishing lodges Campgrounds Space available for building summer homes Museums Trailer villages Goose sanctuary Marinas Floatplane bases Boat-launching ramps Playgrounds Trailer sanitary stations Picnic shelters Fishing access sites	Swimming Camping Fishing Hiking Tennis courts Picnicking Boating Snowmobiling Skiing - cross-country - downhill Polo Golfing Horseback riding Bicycling Hunting	53	\$7.00 - \$14.00 a night
Saskatchewan (31)	9 080	Provincial - wilderness - natural environment - recreational - historic	Campgrounds - picnic and playground areas - electricity - wood - potable water - washrooms - sewage pumpouts - boat and canoe rentals Modern cabins Chalet	Skiing Camping Picnicking Swimming Historic interest sites Snowmobiling Nature trails Arts and crafts Social functions Hunting, fishing, boating and sailing Snorkelling Auto touring Horseback riding Tennis Golfing Cycling Hiking trails Recreation and waterfront programs White-water canoeing	21	Entry \$5.00 or \$20.00 (season) Camping \$6.00 to \$12.00 daily \$6.00 - economy \$8.00 - standard \$10.00 - serviced \$12.00 - deluxe serviced
Alberta ² (125)	12 514 (1 264)	Provincial - recreational Wilderness area - park Forest land-use zones	Campgrounds Playgrounds Picnic areas Beaches Trails Boat launches Sanitation stations Restaurants Lodge for handicapped (provincial park)	Camping Picnicking Fishing Hiking Golfing Hunting Swimming Boating Interpretive programs Skiing - cross-country - downhill	61 70	\$7.00 - \$11.00 a night no charge
British Columbia (387)	53 363	Wilderness area Recreation Natural Marine	Lodges Campgrounds Picnic areas Mooring facilities Hiking trails Nature trails Boat ramps Recreation vehicle sani-stations	Boating Camping Picnicking Visitor centres Interpretive programs Winter sports Skiing Mountain climbing Hiking	150	\$6.00 - \$12.00 a night

¹ Not applicable at all types of parks.² 1986 rates.

Sources

- 1.1 - 1.6 Surveys, Mapping and Remote Sensing Sector, Department of Energy, Mines and Resources.
- 1.7 Communications Directorate, Environment Canada.
- 1.8 Canadian Parks Service, Information Branch, Environment Canada.
- 1.9 Respective provincial government departments.

CHAPTER 2

DEMOGRAPHY

CHAPTER 2

DEMOGRAPHY

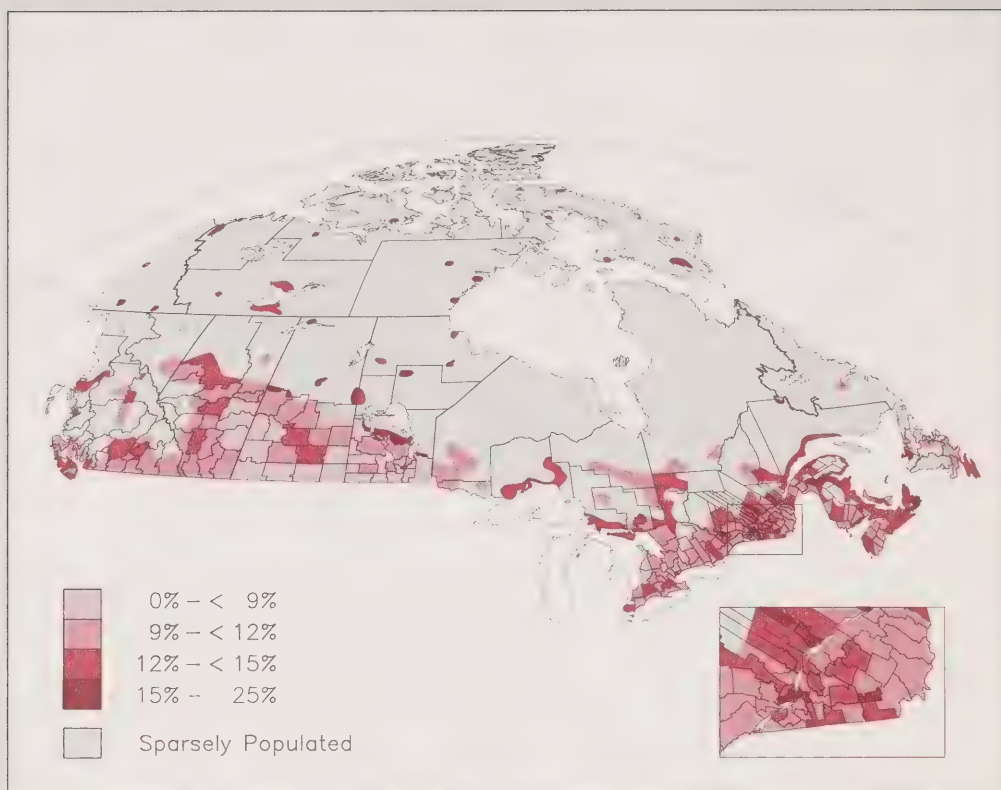
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PERCENTAGE OF LONE-PARENT FAMILIES, 1986

There is no consistent trend in the geographic distribution of lone-parent families across the country, although higher percentages tend to be found in major urban areas.

In 1986, more than four out of five (84%) Canadians lived in families. This proportion has been declining since 1966 when 88% of the population lived as families. The average family size has also been declining, from 3.9 people in 1961, to 3.1 people in 1986.

There are fewer lone-parent families than traditional families, but their numbers have been increasing rapidly. In 1986, 13% of families were headed by a lone-parent; of these 13%, 80% were headed by women.

1986 data mapped by Census division

Map produced by the Geocartographics Division, Statistics Canada.

CHAPTER 2

DEMOGRAPHY

2.1 Population growth

The most fundamental information about a population is its rate of growth which affects almost every aspect of the national life. Several demographic elements combine to produce this rate: births, deaths, immigration and emigration.

Canada's population reached 25,354,064 on June 3, 1986, the date of the 1986 Census. This represents a growth rate of 4.2% (or 1,010,883 people) over the 1981-86 period. In 1988, the population of Canada had risen to 25,923,300, according to Statistics Canada estimates.

Although Canada's population is increasing, its rate of growth is actually slowing down. The growth rate of 4.2% for the 1981-86 period is the lowest five-year growth rate recorded by the Census in the last 25 years, down from a high of 9.7% during the 1961-66 period. This decline may be attributed to lower immigration levels and a declining birth rate.

2.2 Canada's Census

Decennial Census. The basic legal reason for the decennial Census is to enable a redistribution of seats in the House of Commons. Under the terms of the Electoral Boundaries Readjustment Act, the Census must provide population counts by electoral districts.

The 1981 Census was the 12th since Confederation in 1867. The decennial Census has followed an uninterrupted sequence since 1851.

Quinquennial Census. In 1956 a new Census was added, to keep statistical information abreast of the demographic and socio-economic developments that affect decision-making in both private and public sectors. These Censuses have been taken every fifth year between decennial Censuses. Canada's most recent quinquennial Census was taken in June 1986.

The Census is a principal source of information for measuring social and economic change, and for detecting those needs which necessitate the development and implementation of policies and programs such as regional development, health

and welfare programs, education facilities, immigration, low-income housing and transportation networks.

Census terms. The general concept of a Census agglomeration (CA) is one of a large urbanized core, together with adjacent urban and rural areas which have a high degree of economic and social integration with that core.

A CA is defined as the main labour market area of an urban area (the urbanized core) of at least 10,000 population, based on the previous Census. Once a CA attains an urbanized core population of at least 100,000, based on the previous Census, it becomes a Census Metropolitan Area (CMA).

Census Metropolitan Area refers to the main labour market area of an urban area of at least 100,000 population.

Census subdivision refers to municipalities, Indian reserves, Indian settlements and unorganized territories.

Occupied private dwelling refers to a private dwelling in which a person or group of persons is permanently residing.

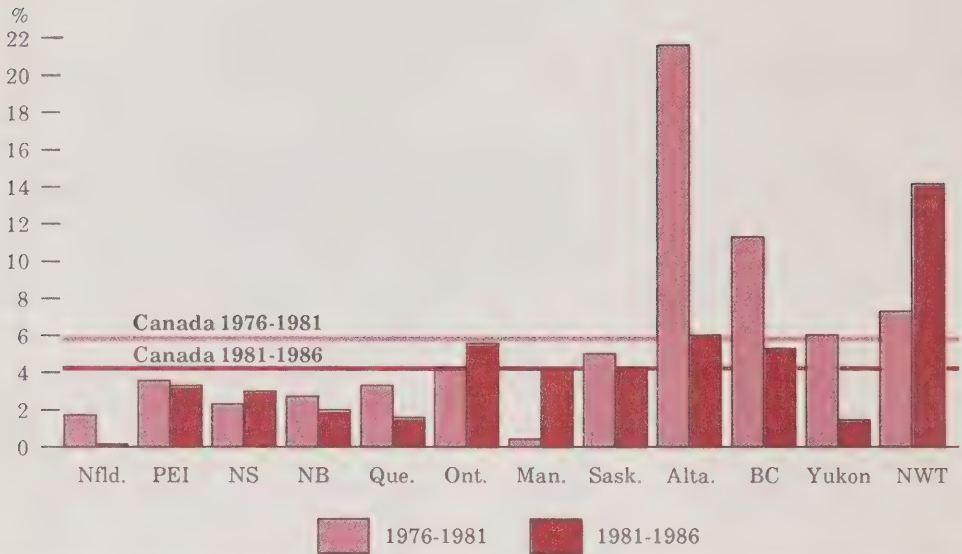
2.3 Growth of the provinces and territories

Five of the 10 provinces exceeded the national five-year growth rate, between 1981 and 1986, in the 1986 Census. Alberta led the way with a growth rate of 6.1%, although this is significantly lower than the rate of 21.7% registered during the 1976-81 period. The growth rate in Alberta was primarily due to a much higher than average rate of natural increase (excess of births over deaths). This natural increase, together with migration from abroad, more than counter-balanced a net out-migration of persons to other provinces.

Ontario followed a close second, with a growth rate of 5.7%, up slightly from its rate of increase over the 1976-81 period. In fact, Ontario was the only province east of Manitoba to experience a growth rate above the national average.

In the West, British Columbia, Manitoba and Saskatchewan also all exceeded the national

Chart 2.1

Population growth rate

growth rate with 5.3%, 4.4% and 4.3%, respectively. Comparable rates for the 1976-81 period showed British Columbia had an increase of 11.3%, Manitoba, 0.5%, and Saskatchewan, 5.1%.

Between 1981 and 1986, Saskatchewan's population increased by 41,885, breaking the one-million population barrier for the first time. Saskatchewan is the sixth province with a population over one million.

Of the 10 provinces, Manitoba experienced the largest increase in growth rate, from 0.5% between 1976 and 1981 to 4.4% between 1981 and 1986.

Quebec registered a population growth rate of 1.6%, the second smallest growth rate among the 10 provinces. This was a decline from a level of 3.3% experienced during the 1976-81 period. Newfoundland had the lowest growth rate, at 0.1%.

The Yukon Territory experienced a population growth rate of 1.5%, a significant decline from the 6.0% registered during the 1976-81 period. The Northwest Territories, however, experienced an increase of 14.2% during 1981-86, up from 7.4% during the 1976-81 period.

2.4 Population redistribution

One effect on the differences in provincial growth has been a continued redistribution of Canada's population over the last 25 years.

British Columbia, in experiencing growth rates consistently higher than the national average, had an 11.4% share of the population in 1986, up from 8.9% in 1961. Alberta accounted for 9.4% of Canada's population, up from 7.3% in 1961. The principal cause of these higher-than-average growth rates has been international and inter-provincial migration.

Although Alberta has experienced an increase, both Manitoba and Saskatchewan recorded a smaller proportion of the population, leaving the Prairie region as a whole almost unchanged from its 1961 level, with 17.6% of Canada's population.

Ontario had 35.9% of Canada's population in 1986, up from 34.2% in 1961. Its share of the total population increased slightly between 1981 and 1986, following a decline during the previous five years.

Both the Atlantic provinces and Quebec showed continued declines in their share of the population.

Quebec's share of 25.8% of the population in 1986 was down 3.0% from its 1961 level, while the Atlantic provinces accounted for 9.0% of Canada's population, down from a 1961 level of nearly 10.4%.

2.5 Metropolitan areas

The average growth rate of Canada's 25 Census Metropolitan Areas was 5.9%, as recorded in the 1986 Census, notably above the national average.

Saskatoon ranked first among Canada's Census Metropolitan Areas, with a population growth rate of 14.6% during the 1981-86 period.

In terms of growth rate, Ottawa-Hull ranked second with a growth rate of 10.1%, followed by Toronto with 9.5%.

The metropolitan areas of Calgary and Edmonton, which experienced very substantial growth rates of 33.2% and 33.7% during the 1976-81 period, grew by 7.2% and 6.0%, respectively, between 1981 and 1986.

Toronto, Montreal and Vancouver continue to be Canada's three largest metropolitan areas with populations in excess of one million. Together they comprised 7.7 million people or 30.5% of Canada's population in 1986.

A preliminary analysis of the growth in these three Census Metropolitan Areas indicates a resurgence in the growth of their central cities.

While the cities of Toronto, Montreal and Vancouver continued to grow at a slower rate than the surrounding municipalities of the metropolitan areas, these three central cities continued to show the turnaround in population growth that was first observed in the 1981 Census.

For the 1981-86 period, Toronto showed an increase of just over 2%. This compares to a decrease of 5% during the 1976-81 period and an even larger decrease of 11% during the 1971-76 period.

In the case of the city of Montreal, the population showed little change between 1981 and 1986, compared to declines of about 10% in each of the periods 1976-81 and 1971-76.

Vancouver showed an increase of just over 4% for the 1981-86 period, up from about 1% during 1976-81 and a decline of 4% during the 1971-76 period.

2.6 Municipalities

Among Canada's 144 municipalities with populations in excess of 25,000, 68 experienced rates of growth above the national average, recorded in the 1986 Census, with the strongest occurring in suburban municipalities surrounding major centres.

Vaughan, Ont., near Toronto, was the fastest growing large municipality, more than doubling its population by adding over 35,000 people. Cumberland, Ont., near Ottawa, ranked a distant second with a population growth rate of 66.9%. Nine of the 10 fastest growing municipalities were located in Ontario.

Municipalities experiencing the largest rates of population decline were found primarily in resource or one-industry-based regions. Sept-Îles, Que., registered the largest percentage decline in its population, at 12.4%.

Calgary is now Canada's second largest municipality. Montreal continued to occupy top spot as Canada's largest municipality, with just over one million people. Calgary, however, switched with Toronto to occupy second position, with a population of just over 636,000.

Mississauga, Ont., ranked ninth in size, experienced the largest absolute increase of just under 59,000 people.

2.7 Demographic and social characteristics

2.7.1 Shift in age structure and trends

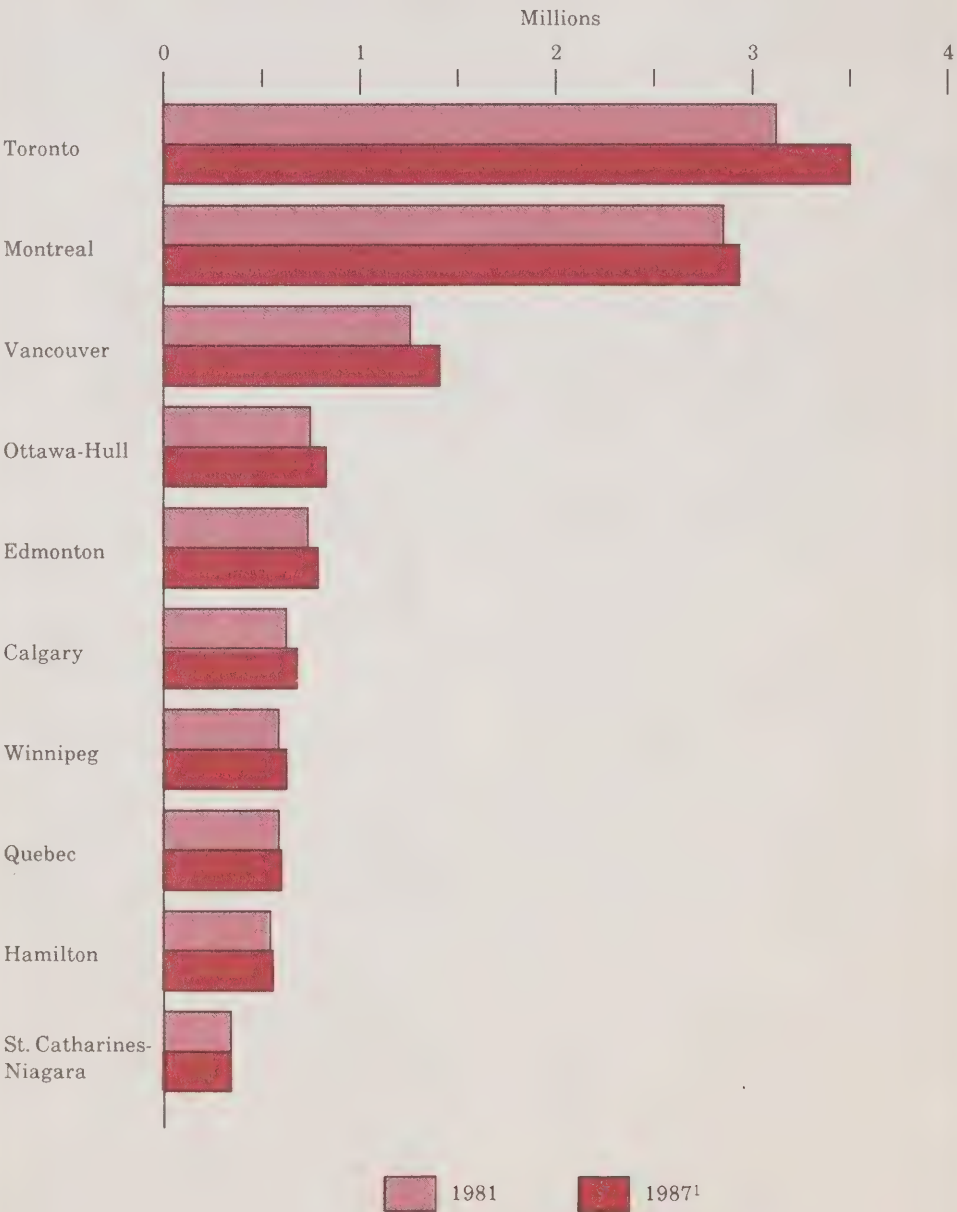
Data from the 1986 Census reflect the continuation of large scale changes in the age distribution of the Canadian population. While the growth rate in the total population has gradually declined over the past quarter century, the rate has varied widely for different segments of the population.

The changes in the age structure reflect the impact of varying birth rates in earlier years, in particular, the "baby boom" of the 1950s and early 1960s, followed by the "baby bust" of the late 1960s and 1970s. As persons born during these periods move through their life-cycle, they have had and will continue to have significant impact on the school system, the labour force, family formation, health care and many other aspects of society.

Another factor contributing to the shift in the age structure is the substantial gain in life expectancy since the mid-1970s. This, in part, explains the large increase in the size of the elderly population. The high growth rate of the elderly population is expected to continue well into the next century. This will have a significant impact on the demand for health and social services.

Child population stabilizing. While the decline in the birth rate has resulted in much smaller pre-school and primary school age populations in 1986 compared to 1961, the size of these groups has stabilized during the 1980s.

Chart 2.2
Population of top 10 Census Metropolitan Areas



¹ Estimates obtained aggregating the Census division regression-nested estimates.

The pre-school population (under six years of age) has in fact increased by nearly 2% over the 1981-86 period, while the primary school age population has decreased by only 3%. These changes are small compared to the declines observed during the "baby bust" and reflect the stabilization in the birth rate during the 1980s.

The stability of this dependent population implies that there will not be additional pressure on the delivery of elementary educational services into the early 1990s.

Youth population declining. While the number of people under age 14 has not changed much since 1981, the population aged 14 to 24 has declined significantly. Most persons in this age group were born during the "baby-bust" era of the late 1960s and 1970s when birth rates were dropping rapidly.

Between 1981 and 1986, the secondary school age population (14-18) decreased by 15%, while the youth population (18-24) experienced an 8% drop. These decreases have started, and will continue to exert a downward pull on the number of persons entering the labour market. This is in sharp contrast to the 1960s and 1970s, when the "baby-boomers" entered the labour market in record numbers.

Adult population continues to increase. There are over one million persons aged 75 or over in Canada and more than half the population is over 30 years of age.

The population aged 20 to 64 continued to increase between 1981 and 1986. This group was 66% larger in 1986 than in 1961 and grew by nearly 8% during the 1981 to 1986 period. In 1986, 56% of this general working age population were 35 years of age or older. In future years, as the "baby-boomers" move into their 40s and beyond, the working age population will become increasingly concentrated in the older age groups.

The population aged 65 and over has grown from 1.4 million in 1961 to 2.7 million in 1986, a rate of increase more than twice that of the population as a whole. The numbers of those 75 years of age and older increased at an even higher rate. In 1986, there were just over one million persons aged 75 and over, more than double the number in 1961.

The aging of the population is clearly reflected in the fact that the median age of the Canadian population is now the highest in history. In 1986, the median age of the population was 31.6 years, up from 29.6 in 1981 and 26.3 in 1961.

In 1986, nearly 11% of the population was 65 years of age and older compared to less than 8% in 1961. In contrast, in 1986, 21% of Canadians were under 15 years of age compared to 34% in 1961.

British Columbia had the highest median age (33 years) in 1986, followed by Ontario and Quebec with median ages of 32 years. At the other extreme, the Northwest Territories had by far the youngest population (median age of 24 years), followed by Newfoundland with a median age of 28 years and Alberta and the Yukon with median ages of 29 years.

Women outnumber men among seniors. In 1961, there were 106 women aged 65 and over for every 100 men in the same age group. By 1986 the ratio had jumped to 138 women for every 100 men.

The gap between the number of males and females increases with age so that for the population 85 years of age and older, women outnumbered men by more than two to one in 1986. This imbalance between females and males among seniors is due to differences in longevity, with women outliving men an average of seven years.

More single young adults. Young adults are tending to marry at a later age. As a result, the proportion of single persons aged 20 to 34 continued to increase between 1981 and 1986.

Among females 20 to 24 years of age, 60% were single in 1986, compared to 40% in 1961 and 51% in 1981. Similar patterns have been observed for women in the 25 to 34 year age groups, as well as among males.

These trends explain, in part, the lower rates of family formation, the lower fertility rates and the increase in one-person households in recent years.

2.7.2 Language

According to the 1986 Census, 15.7 million persons, or 62.1% of the population of Canada, reported English as their only mother tongue; 6.4 million or 25.1% of the population, reported French as their only mother tongue; and 3.2 million, or 12.8% of the population, reported a language other than English or French as their only mother tongue. (First language learned and still understood.) Of the 3.2 million persons who reported having a single mother tongue other than English or French, 2.1 million indicated a language of European origin, 634,000 a language of Asian or Middle Eastern origin, 138,000 an aboriginal language and 13,000 a language of another origin. (Origin means the geographical region where a language came into being. Persons who report that language may actually come from another region.)

In 1986, nine out of 10 Canadians whose only mother tongue was French lived in the province of Quebec where 82.8% of the population reported that French was their only mother tongue.

Francophones accounted for a third of the population in New Brunswick. In other provinces, French minorities accounted for 5% or less of residents, including Ontario with 484,265 persons whose only mother tongue was French — the largest number of francophones outside Quebec.

At the national level, the proportion of the total population speaking English at home rose from 67.0% in 1971 to 68.9% in 1986, while the proportion speaking French at home declined from 25.7% to 24.0% over the same period.

The proportion speaking a language other than French or English remained at about 7%. Within this latter group, there was strong growth in the number reporting languages associated with the birth places of recent immigrants — notably Spanish and Asiatic languages such as Chinese, Vietnamese, Persian (Farsi) and Tamil.

To better reflect the linguistic reality in Canada, the 1986 Census was the first Census in which Canadians could indicate more than one mother tongue, if the mother tongues had been learned simultaneously and were spoken as frequently during childhood. Nearly one million persons, or a little less than 4% of the population, reported having more than one mother tongue. The distribution of these responses was as follows: English and French, 333,000; English and language(s) other than French, 526,000; French and language(s) other than English, 36,000; English, French and other language(s), 47,000; and more than one language other than English and French, 14,000.

The existence of multiple responses makes comparing 1986 Census results with those of the previous Censuses difficult.

The proportion of francophones in Canada and the proportion of anglophones in Quebec continue to decline. However, because of this change between 1981 and 1986 data, it is difficult to accurately estimate the variations in the linguistic composition of the population from 1981 to 1986.

The drop in the percentage of persons with French as their mother tongue began in 1951. The French-language group then accounted for 29% of the Canadian population, compared with approximately 25% in 1986. In Quebec, the percentage of persons with English as their mother tongue has been falling since 1941. (This was the year of the first Census from which we have data that can be compared with today's data.) This group accounted for 14% of the province's population in that year, compared with approximately 10% at the time of the last Census.

In Quebec, the proportion of Quebecers reporting that they most often spoke French at home rose from 80.8% in 1971 to 82.5% in 1981

and to 82.8% in 1986. During this period, the proportion of Quebecers speaking English at home decreased from 14.7% in 1971 to 12.7% in 1981 and to 12.3% in 1986, while the proportion reporting a language other than English or French rose to 4.9% from 4.5% in 1971 and 4.8% in 1981.

In 1986, more than half of persons with English as their mother tongue, living in Quebec, were bilingual. Almost half of Quebec residents with neither English nor French as their mother tongue also reported they could carry on a conversation in both English and French; as did almost one-third of persons with French as their mother tongue, living in that province.

Less than 6% of persons residing outside Quebec with English or a language other than English or French as their mother tongue reported they were able to converse in both official languages in 1986.

Some Canadians speak a language most often in their home that is other than their mother tongue. These language shifts are a major factor in determining the mother tongue of following generations and contribute to the growth of the language spoken. Most Quebec residents who first learned a language other than English or French as mother tongue and who made a language shift, adopted English as their dominant home language; the French-speaking community in Quebec neither gained nor lost population through language shifts but a loss was recorded for the francophone population living outside Quebec.

In 1986, more than 4 million Canadians reported they could conduct a conversation in both English and French. Bilingual persons represented 16% of the population, up from 15% in 1981 and 13% in 1971. Quebec and New Brunswick recorded the highest rates of bilingualism at 35% and 29%, respectively. Slightly over half of Canada's bilingual population lived in Quebec. The 1.8 million who lived outside Quebec resided mainly in Ontario (1,058,000), New Brunswick (204,000), British Columbia (176,000) and Alberta (150,000).

In most provinces other than Quebec, there has been a downward trend in the proportion of the francophone population since 1981, continuing a trend from previous Censuses. However, the proportion seems to have remained the same in New Brunswick, while rising in the Yukon and the Northwest Territories. In New Brunswick, when the multiple responses given in 1986 are allocated among the various languages as in 1981, the proportion of persons with French as their mother tongue shows little change. Francophones accounted for a third of the population

of New Brunswick. Outside of Quebec, Ontario had the largest number of persons with French as their only mother tongue (484,265 in 1986). These persons accounted for a little less than 5% of the population of that province.

Overall, the size of French-language minorities in the country decreased between 1981 and 1986. In 1986, 945,860 persons living outside Quebec indicated French as their only mother tongue. During the same period, in Quebec, the number of persons with English as a mother tongue also fell, continuing the trend that began in the mid-1970s. In 1986, 678,785 persons reported English as their only mother tongue.

Most of the 3.2 million persons with a single mother tongue other than English or French, spoke European languages (2.1 million persons) but since the 1960s, Asian and Middle Eastern languages — mainly Chinese, Vietnamese, Punjabi, Hindi and Urdu — have grown considerably. Approximately 138,000 people in Canada had a single aboriginal language as mother tongue, mainly Cree, Ojibway and Inuktitut. Languages other than English or French are more prevalent in Ontario and the western provinces, than in Quebec and the Atlantic provinces.

There was little change from 1961 to 1986 in the number of persons who indicated a language of European origin, although there have been changes within this group. For example, the number of persons with Spanish as their mother tongue was larger in 1986 than it was 25 years earlier, while the number with German or Ukrainian as their mother tongue has decreased. Overall, the proportion of the population reporting a mother tongue other than English or French changed little in the 25 year period.

In 1986, the proportion of the population for which the only mother tongue was neither English nor French varied a great deal from one region of the country to another: this group made up less than 2% of the population in the Atlantic provinces, 6% in Quebec, 15% in Ontario, 19% in Manitoba, 13% in Saskatchewan, 13% in Alberta, 14% in British Columbia and 7% in the Yukon. The Northwest Territories reached 40%; most of these persons reported Inuktitut as their mother tongue.

Collection of data on mother tongue. The following is an overview of some changes made in data collection and a description of the analytical methods used to determine the trends.

Data collection. The question on mother tongue was the same in the last two Censuses, but the instructions to respondents were modified. In 1981, the respondents were asked to indicate only

one language, nevertheless, 597,980 persons reported more than one. This instruction was dropped from the 1986 Census. Under the new instructions, people could indicate two mother tongues if they had learned them at the same time and had spoken one as frequently as the other when they were children.

The number of multiple responses given in the 1986 Census was significantly higher than the number given in the 1981 Census. This increase may have resulted from changes made in the questionnaire, changes in the way the population answers language questions or an increase in the number of persons who learned more than one language as a mother tongue. In 1986, 954,940 persons provided a multiple response.

When the 1981 data were processed, only one language was retained, even in cases where the respondent reported more than one. In 1986, responses indicating more than one language were accepted.

Comparison between 1981 and 1986. In order to facilitate the determination of the trends between 1981 and 1986, two methods of comparison were established. In the 1986-based method, the presentation of the data from the 1981 Census shows the multiple responses obtained at that time. In the 1981-based method, the results of the 1986 Census were adjusted, based upon the methods used in 1981; in cases where several languages were reported, the multiple responses were distributed among the component languages.

These adjustments make it easier to relate the 1986 data to the 1981 data, but do not make the results of the two Censuses entirely comparable.

Generally, the two methods reveal similar trends. For New Brunswick, the results obtained using the second method indicate that the size of the French-language group grew and that its proportion did not change between 1981 and 1986.

2.7.3 Ethnic groups

In total, the ethnic background of 72% of Canadians was made up of just one ethnic origin. Of this group, just over one-third was of British origin and one-third was French.

Regional differences were reflected in ethnic reporting. Newfoundland had the highest proportion of the population with a common ethnic background: 80% of Newfoundlanders reported a single British response. In Quebec, 78% of respondents gave French as their only ethnic origin.

The western provinces, notably Manitoba and Saskatchewan, showed greater ethnic diversity. British single responses represented the single

largest group, comprising just over 21% and 22% of all ethnic origins in these provinces. The next largest group, German single response, was 9% and 13% respectively.

The Northwest Territories was the only area of the country where neither British nor French was the largest group. Aboriginal peoples were in the majority and 52% of the population of the Northwest Territories reported a single aboriginal response.

The 1981 Census was the first to accept more than one ethnic origin response per individual, but the 1986 Census was the first to ask Canadians to provide as many origins as apply. In 1986, 28% of Canadians gave more than one ethnic origin as compared to over 11% in 1981.

In 1986, 72% of Canadians or 18,035,665 gave one ethnic origin, 17% or 4,276,520 reported two origins, 7% or 1,721,955 gave three origins, and 4% or 987,875 provided four or more origins.

There were considerable regional variations in the percentage distributions of single and multiple ethnic origin responses. In 1986, for example, 7% of respondents in Quebec gave a multiple response as compared to Yukon and Alberta where 45% and 41% of the population, respectively, provided more than one ethnic origin.

The level of multiple response for many ethnic groups was substantial. For example, 81% of all Irish responses and 78% of all Scottish responses were multiple. This pattern was also evident for many of the northern, central and eastern European groups. For these groups, the proportion of the multiple response was often greater than 50%. For example, 56% of Ukrainian, 60% of Dutch and 64% of German responses were multiple.

Understandably, ethnic groups which have experienced high levels of immigration since the last Census were more likely to report a single ethnic origin. Vietnamese, Cambodian (Kampuchian), Iranian, Korean and Filipino origins had a lower incidence of multiple response. For example, only 7% or 2,020 Koreans, 12% or 1,425 Cambodians (Kampuchians), 13% or 13,780 Filipinos, 15% or 2,420 Iranians, and 16% or 9,980 Vietnamese gave multiple responses.

In 1986, 25% of all Canadians reported ethnic origins other than British or French. This included those who gave a single ethnic origin other than British or French as well as those who gave a multiple response that did not include British or French.

Of all Canadians who reported having neither British nor French origins, 63% were of European background, 10% Asian, 6% South or West

Asian (Middle Eastern), 6% Aboriginal, 3% Black, 2% Other, and 10% gave a multiple response that did not include British or French.

Again, there was considerable regional variation in the non-British and non-French population. For example, the Northwest Territories had the highest level (64%) due largely to its substantial aboriginal population, while Newfoundland (2%) showed the lowest. Both Manitoba and Saskatchewan had levels of non-British and non-French origins which were higher than 40%.

There were also regional differences in the distribution of various groups. Asians were more likely to live in Ontario and British Columbia, than in the Maritime provinces or Newfoundland. Eighty-five percent of Blacks lived in Ontario and Quebec, and those of European ethnic background were predominant in all provinces.

2.7.4 Aboriginal origins

In 1986, 711,725 persons (representing 3% of the total population of Canada) reported at least one aboriginal origin. Although the 1981 data are not directly comparable to 1986 data for aboriginal peoples, the total number of people reporting aboriginal origins in 1981 was 491,460 or about 2% of the total population of Canada. In 1986, 286,230 gave a single North American Indian origin, 59,745 a single Métis origin and 27,290 reported a single Inuit origin.

Approximately 332,500 or 47% of respondents reported both aboriginal and non-aboriginal origins (for example, North American Indian and French). Another 5,960 or 1% of respondents gave a multiple response that included only aboriginal origins (for example, Métis and North American Indian).

Most of Canada's aboriginal population lived in the Northwest Territories and in the western provinces. For example, 59% or 30,530 of the Northwest Territories respondents said they were of aboriginal origin. In the Yukon, 21% or 4,990 gave aboriginal origins and 8% of the total population of Manitoba (85,235) and Saskatchewan (77,645) reported at least one aboriginal origin. By contrast, just 1% or 1,290 persons from Prince Edward Island indicated aboriginal origins.

2.7.5 Religious denominations

Information on religious denominations was not requested in the 1986 Census. The following statistics are from the previous Census.

In 1981, the 11.4 million Catholics formed 47.3% of the population and 9.9 million Protestants, 41.2%. The remaining population was divided as follows: those with no religious

preference, 7.4%; Eastern Orthodox, 1.5%; Jewish, 1.2%; and other small groups, 1.3%.

Two provinces were predominantly Catholic, Quebec with 88.2% of its population and New Brunswick with 53.9%. All other provinces had a Protestant majority.

Nearly 1.8 million persons who reported themselves as having no religious preference showed an increase in proportion in this category by 90% between 1971 and 1981.

One-half of persons of Jewish religion lived in Ontario, where they numbered 148,255 or 1.7% of the population. Another one-third or 102,355 were in Quebec, where they accounted for 1.6% of the population.

Buddhists recorded the largest 10-year increase among religious groups, up 223% to 51,955. Pentecostals had the second largest rate of growth, increasing 54%. Other religious groups increasing since 1971 included Mormons, up 36%; Roman Catholics, up 13%; Jewish, up 8%; and the United Church, up 1%. By contrast, Unitarians decreased by 31%; Doukhobors, 27%; Presbyterians, 6%; and Anglicans, 3%.

The Atlantic provinces had the smallest proportion stating no religious preference, ranging from 1% in Newfoundland to 4% in Nova Scotia. This category rose to just over 7% of the population of both Ontario and Manitoba, to 11.7% in Alberta, 20.3% in Yukon and 20.5% in British Columbia. Just over 6% of the people of both Saskatchewan and Northwest Territories reported no religious preference.

2.8 Families and households

In 1986 more than four out of five (84%) Canadians lived in families as wives, husbands, lone-parents or children, recorded in the 1986 Census. This proportion was down slightly from 1981, continuing the longer term decline that began in 1966 when just over 88% of the population lived in families.

Though the proportion of Canadians in families has been gradually declining, there has been a slight increase in the number of families, from 6.3 million in 1981 to 6.7 million in 1986. This five-year increase (6%) was moderate compared with earlier years. Between 1971 and 1976, the number of families increased by 13%, while between 1976 and 1981, it increased by 10%.

Recent slower growth in the number of families is due in part to delays in marriage, and also to an aging population now moving past the prime family-forming years. Nevertheless, the rate of increase in families was still greater than the

population growth in Canada over the 1981-86 period.

Family size dropping. While there are more families in Canada, the typical family is now smaller. Family size has declined since 1961 when the average family size was 3.9 people. Since then, the decline in size has been steady. In 1976, the average family had 3.5 people, in 1981, 3.3, and in 1986, 3.1.

The decline in family size is due mainly to lower fertility rates. For example, in 1986, the average number of children living at home was 1.3, down from 1.4 in 1981 and 1.9 in 1961. The increase in the number of lone-parent families also has contributed to smaller family size. Lone-parent families averaged 2.6 persons per family in 1986, compared to 3.2 persons among husband-wife families.

There has also been a dramatic growth in families with no children at home. (These may either be childless families, or families where grown children have left home.) In 1986, there were 2.2 million such families, or close to a third of all families. This represented a 9% increase over 1981, and far outpaced the growth of families with children at home (5%).

Families with children still in the majority. While the number of childless families has increased, close to 70% of Canada's families have children at home. In 1986, there were 4.5 million families with children. Moreover, four out of five of these families were the traditional husband-wife-child(ren) families.

Although lone-parent families are considerably fewer in number than these traditional families, they have been increasing at a much faster rate. Between 1981 and 1986, there was a 20% increase in their numbers. In 1986, they represented 13% of all families, up from 11% in 1981.

While the majority (80%) of lone-parent families were headed by women, there has been a slightly more rapid increase in the number of male lone-parents. Between 1981 and 1986, lone-parent families headed by men increased by 22%, following a 31% increase between 1976 and 1981. This compares to increases of 19% during 1981-86 and 27% during 1976-81 for lone-parent families headed by women.

Families with young children. At the time of the 1986 Census, there were 1.3 million husband-wife families and 175,485 lone-parent families with children under six years of age. Together, these families with young children made up 22% of all families in Canada.

While the growth in the pre-school population has been slow, a continuing increase in the participation of young mothers in the labour force may see the current demand for day care facilities maintained. Labour force data from the 1986 Census will enable trends in the work patterns of young mothers to be analyzed further.

Households and living arrangements. Between 1981 and 1986, the number of private households in Canada increased twice as fast as the population. In 1986, there were 8.9 million households, up 9% from 1981. In the same period, the country's population increased by only 4%. However, the rate of increase for households has actually declined significantly. Between 1976 and 1981, the number of households increased by 16%, compared to 9% between 1981 and 1986.

In Canada, an increasing number of people are living alone. In 1961, less than 10% of all private households were one-person households. By 1986, the 1.9 million people living alone made up 21% of all private households.

Factors contributing to the growth in the number of one-person households are the aging of the population and increases in marriage breakdown. In the latter case, while most divorced persons eventually remarry, they do swell the ranks of those living alone, if only temporarily. In the former case, differences in mortality rates, with wives outliving their husbands, have continued to result in a rising number of elderly widows living alone.

More and more Canadians are living as husband and wife outside the bounds of formal marriage. Between 1981 and 1986, there was a 38% increase in the number of reported common-law unions. In 1986, 8% of all couples, about 487,000 families, reported that their union was common-law. In 1981, 6% of all couples, or about 352,000, reported living in such unions.

There were fairly wide regional variations in the incidence of such unions. The highest proportions of common-law couples were to be found in the Yukon (20%) and the Northwest Territories (17%). Among the provinces, 13% of couples in Quebec were living common-law, while in Newfoundland and Prince Edward Island, less than 5% of all couples were not formally married.

Close to 2.7 million people in Canada were 65 years of age and over in 1986. Of these, 91% were living in private households while 9% lived in nursing homes, other institutions and establishments. A total of 25% of the elderly lived alone.

There are significant differences in living arrangements among the elderly in Canada. In the 65 to 74 year age group, only 3% were living

in nursing homes and other institutions. Almost two-thirds of this age group lived in families (with their spouses or perhaps with unmarried children). About 22% lived alone and 7% lived with other relatives.

The population 75 years and over, a rapidly growing group, has quite a different pattern of living arrangements. For example, 17% of those 75 years and over lived in nursing homes or other institutions. The proportion of those living alone increased to 30%; 38% lived with a spouse or unmarried children; and 12% were living with other relatives.

2.9 The vital components

Vital statistics are an indispensable tool to the measurement and interpretation of population change. They provide information such as the rate at which men and women marry and have children, marriages are contracted or dissolved, and population increases due to births and decreases due to deaths. The statistics are derived from the records of events of births, deaths, marriages and divorces registered in the provinces and territories.

History of vital statistics. Historically, vital statistics data for Canada and the provinces go back to 1921. These can be obtained from a variety of periodic publications as well as from the repository of unpublished tabulations at the vital statistics and health status sections of health division, Statistics Canada.

Summary of principal data. Table 2.28 provides a summary of the principal vital statistics for Canada, the provinces and territories.

2.9.1 Births

Of all the demographic factors which produce changes in population (fertility, mortality, nuptiality, immigration, emigration), none exerts greater influence than the rate of reproduction or fertility.

Birth rates. Accurate figures on Canadian crude birth rates have been available since 1921 when the annual collection of official national figures was initiated. The following estimates of the average annual crude rates of live births (per 1,000 total population) for each 10-year intercensal period between 1851 and 1921 may be inferred from studies of early Canadian Census data: 1851-61, 45; 1861-71, 40; 1871-81, 37; 1881-91, 34; 1891-1901, 30; 1901-11, 31; 1911-21, 29.

The annual crude birth rates declined steadily from 29.3 in 1921 to a low of 20.1 in 1937, recovered somewhat in the late 1930s and rose

slightly during the period of World War II to 24.3 in 1945. Following the War the rate rose to a high of 28.9 in 1947. Between 1948 and 1959 it remained remarkably stable at between 27.1 and 28.5, but has since declined dramatically to a record low of 15.6 by 1974. The rate increased slightly for the next few years and then declined to 15.3 in 1981, to 15.0 in 1983 and 14.7 in 1986. Provincial rates have followed this trend with some regional differences.

Since these crude birth rates are based on the total population they do not reflect the true fertility of the women in reproductive ages. A more accurate measure of fertility is one based on births to the number of women, by age, between the ages of 15 and 49 (Table 2.30).

Stillbirths. The 1,972 stillbirths of at least 28 weeks gestation reported in 1981 represented a ratio of 5.3 for every 1,000 live births (Table 2.29). The ratio declined to 4.9 in 1983 and to 4.2 in 1986. The stillbirth ratio has been cut by more than half over the past quarter-century. The risk of having a stillborn child increases with the age of the mother. Although stillbirth rates for mothers of all ages have been declining, they continue to be much higher for older than for younger mothers.

2.9.2 Fertility rates

Since almost all children are born to women between the ages of 15 and 49, variations in the proportion of women in this age group to the total population will cause variations in the crude birth rate of different countries, or of different regions, even though the actual rates of reproduction or fertility of the women may be the same. It is therefore an accepted practice for comparison purposes to calculate age-specific fertility rates, the number of infants born annually to every 1,000 women in each of the age groups in the reproductive span.

Table 2.30 indicates that women in their 20s are the most reproductive. On the average, for every 1,000 women between 20 and 24, there were about 85 infants born during 1986. The highest rate is found in the 25-29 age group with an average of 125 for every 1,000. Another measure of fertility is the gross reproduction rate which represents the average number of daughters that would be born to each woman throughout her child-bearing ages (15 to 49) if the fertility rate of the given year remained unchanged during the whole of her child-bearing period. A rate of 1.000 indicates that, on the basis of current fertility and without making any allowance for mortality among mothers during their child-bearing years, the present generation of child-bearing women would maintain itself.

Canada has had one of the highest gross reproduction rates among industrialized countries. Even at low birth rates in the 1930s, the rate varied between 1.300 and 1.500 and since World War II has ranged from 1.640 in 1946 to a high of 1.915 in 1959. However, since 1963 the national gross reproduction rate has dropped to 0.829 in 1981, to 0.816 in 1983, to 0.811 in 1985, and increased slightly to 0.816 in 1986. This is appreciably below the replacement level of 1.050. Among the provinces, the 1986 gross reproductive rates were below replacement level of 1.000 for all except Saskatchewan (1.014). The 1986 rates were lowest for the provinces of Quebec and New Brunswick.

2.9.3 Natural increase

The excess of births over deaths, or natural increase, has been the main factor in the growth of Canada's population. Some idea of the rate of natural increase back to the mid-1800s may be obtained from the estimates of births and deaths which produce the following natural increase rates (per 1,000 population): 1851-61, 23; 1861-71, 19; 1871-81, 18; 1881-91, 16; 1891-1901, 14; 1901-11, 18; 1911-21, 16.

During the 1920s and early 1930s the birth rate declined much more rapidly than the death rate and the natural increase rate dropped to a record low of 9.7 in 1937. Higher birth rates during the 1940s and 1950s and a continued declining death rate caused the natural increase rate to rise steadily from 10.9 in 1939 to a record 20.3 in 1954. After that there was a steady drop due to declining birth rates and the natural increase rate fell below 10 for the first time in 1971 at 9.5 and dropped further to 8.0 in 1974. It edged up slightly in 1976 to 8.4, but fell to 8.2 in 1981, to 8.0 in 1983 and to 7.5 in 1986. Table 2.28 gives average rates of natural increase in the provinces and territories.

2.9.4 Deaths

The Canadian crude death rate is one of the lowest in the world (7.3 per 1,000 population in 1986). After a gradual decline over the past century, the rate has levelled off since 1967. In the opinion of demographers, a further reduction in the crude death rate is likely to be small. However, the sustained aging of the population due to continued declines in fertility may cause some increases in the death rate in future years.

General and infant mortality. No official crude death rates (rates per 1,000 total population) are available prior to 1921. However, studies of the early Canadian Censuses resulted in the following estimated annual crude rates: 1851-61, 22; 1861-71,

21; 1871-81, 19; 1881-91, 18; 1891-1901, 16; 1901-11, 13; 1911-21, 13.

Typical of pioneer populations, Canada had high death rates in the mid-1800s with the crude death rate estimated between 22 and 25. It is assumed that while mortality was high at all ages, the rate among infants and children must have been particularly high. In 1921, when official death rates were first available, the Canadian infant mortality rate was 102.1 per 1,000 live births. With increasing urbanization and improved sanitation and medical services, the infant mortality rate declined to 9.6 in 1981, less than one-tenth the 1921 level. It further declined to 8.3 in 1983 and to 7.9 in 1986. The crude death rate dropped by 50%, from 22 to 11, between 1851 and 1930. It continued to decline to a low of 7.3 in 1970 and 1971, fluctuating slightly for a few years and further declining to 7.0 in 1981 and 1983 with a slight increase to 7.3 in 1986.

2.9.5 Marriages

In 1986, there were 175,518 marriages solemnized in Canada compared to 191,069 in 1980. The rate of marriages (marriages per 1,000 population) declined from 8.0 in 1980 to 6.9 in 1986. Alberta recorded a marriage rate of 8.0 in 1986 and continued to have the highest rate of any province (Table 2.31).

In 1986, the average age at marriage for persons never previously married — the age above and below which half the marriages occurred — was 25.8 for bridegrooms and 23.9 for brides. Bridegrooms averaged 27.0 years, and brides, 24.8.

2.9.6 Divorces

The number of decrees absolute granted in Canada has risen sharply as a result of the 1968 changes in divorce legislation. Divorces rose to 70,436 in 1982 from an average of about 11,000 divorces per year over the period 1966-68. The number of annual divorces declined to 68,567 in 1983 and to 61,980 in 1985, then increased to 78,160 in 1986. The divorce rate per 100,000 population declined from 285.9 in 1982 to 275.5 in 1983 and to 244.4 in 1985 and increased to 308.8 in 1986. Of all the provinces, as for the past years, the 1986 divorce rates were highest for Alberta (396.7) and British Columbia (387.6) and lowest for Newfoundland (107.3) and Prince Edward Island (150.9).

Grounds for divorce. According to 1986 statistics, the alleged main grounds for divorce in descending order were: separation for not less than three years under the Divorce Act and for not less than one year under the Divorce Act, 1985 (41,204 cases), adultery (21,295 cases), mental cruelty

(18,414 cases), physical cruelty (10,744 cases), addiction to alcohol (835 cases), and desertion by petitioner, not less than five years (723 cases). Of the 76,160 divorces granted during 1986, 54.6% involved no dependent children; another 19.7% involved one dependent child, 19.3% two dependent children and the remaining 6.4%, three or more dependent children.

Duration of marriage. The duration of marriage was less than five years for 17% and less than 10 years for 29% of the total divorces. For additional information, see Table 2.36.

Marital status. In 1986, 87% of persons granted divorce were involved in first divorce. Over 11.5% of the divorces related to persons who were already divorced at the time of their last marriage and just more than 1.4% to those who were widowed.

2.10 Migration

2.10.1 Immigration

Canada's immigration policy is based on the principle of non-discrimination and emphasizes the selection of immigrants who are likely to adapt to the Canadian way of life, making a positive contribution to economic, social and cultural development in Canada.

Canadian immigration officers apply standard norms of assessment to applicants from all parts of the world. Immigrants are selected for reasons of either family reunification of close relatives, humanitarian concern for refugees who need to be resettled from camps abroad, or economic reasons. In this latter category, immigrants are chosen because they have labour market skills required in the Canadian labour market, or will provide investment capital.

Employment and Immigration Canada (EIC) also regulates the entry of temporary workers and foreign students planning to enrol in public or private institutions and examines millions of visitors who come to Canada each year as tourists or for family, social, cultural or other reasons. EIC facilitates the return of Canadian residents and enforces measures to protect the health, welfare and security of Canadians.

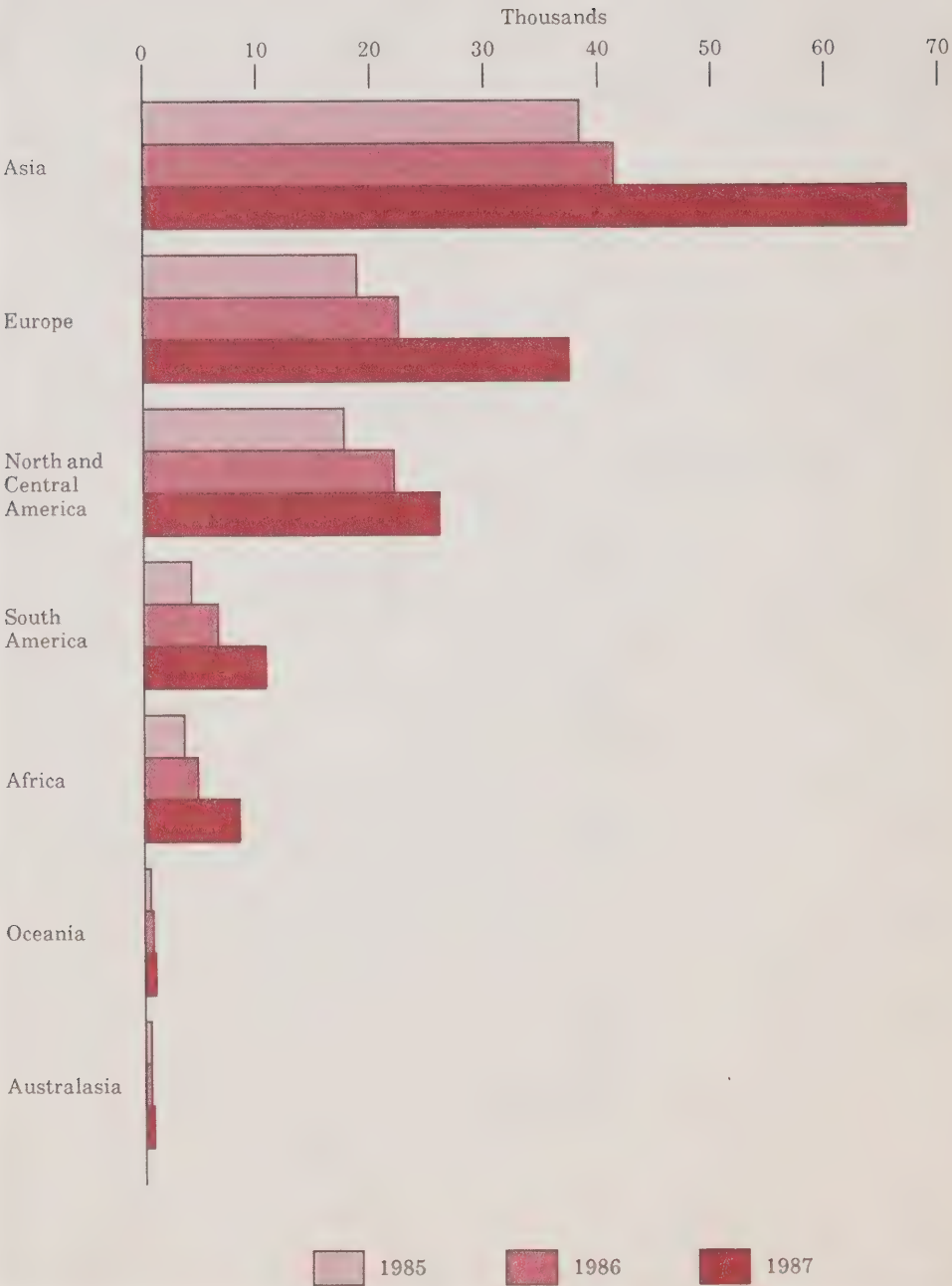
The Immigration Act, 1976, proclaimed in April 1978, brought Canada's immigration policy into sharper focus than ever before. The Act states the basic principles underlying immigration policy — non-discrimination, family reunion, humanitarian concern for refugees, demographic concerns and promotion of national goals. The Act links the immigration movement to Canada's population and labour market needs and, after

Chart 2.3

Percentage change in marriages and divorces, 1978-86



Chart 2.4
Origin of immigrants



consultation with the provinces, provides for an annual forecast of the number of immigrants Canada will admit each year. It establishes a family class, allowing Canadian citizens and permanent residents to sponsor a wide range of relatives. In 1988, regulations were passed to expand opportunities for family reunion under the family class and assisted relative categories. The Act also confirms Canada's protective obligations to refugees under the United Nations Convention and establishes refugees as an admissible immigrant class. It requires that immigrant and visitor visas and student and employment authorizations be obtained abroad, prohibiting visitors from changing their status from within Canada. The Act also stipulates categories of people who are inadmissible to Canada and provides sanctions against illegal migration.

The Act provides for a provincial role in the selection of immigrants and temporary residents. Quebec exercises a very full role in these areas; some other provinces play a more limited role.

Canada's refugee policy includes two major elements, resettlement and protection. Traditionally, permanent residence has been provided for the displaced and persecuted when other solutions to refugee problems were not possible. The size and scope of the resettlement program are determined through an annual refugee plan approved by Cabinet. As a complement to the plan, humanitarian assistance is extended to others who are displaced or in need due to emergency situations. Refugees can be brought into Canada under government sponsor and receive settlement assistance, or through sponsorship by private groups which help the refugee adjust to life in Canada.

The Immigration Act contains provisions to respond to persons who, while temporarily in Canada, claim refugee status. Those recognized as convention refugees can be afforded Canada's protection. In June 1988, legislation was passed to give Canada a new refugee determination system. The new system which respects the Canadian Charter of Rights and the Geneva Convention is offering refugees protection in Canada, while providing for effective means to deal with those who would abuse the system. The legislation created the new Immigration and Refugee Board to assess claims, in part, to refugee status.

Through both refugee and humanitarian programs, 21,565 people were helped to resettle in Canada in 1987.

The immigration program is delivered not only by the Commission at 105 Canada Immigration Centres, but by the Department of External

Affairs at 65 Canadian diplomatic missions abroad, and by Revenue Canada Customs at Canadian points of entry. The Department of National Health and Welfare oversees medical examinations of immigrants and some temporary residents, while the Canadian Security and Intelligence Service is responsible for background checks where required.

The extent of immigration to Canada in any period is affected by conditions at home and abroad. The Immigration Act requires the Minister, after reviewing domestic economic and demographic trends, in consultation with the provinces and any other interested parties, to announce annually the number of immigrants Canada plans to admit over a specified period. The announced level for 1988 was 125,000 to 135,000. Immigrant arrivals for the years 1984-87 are shown in Table 2.39.

Origin of immigrants. In 1987, Canada received 152,098 immigrants from various countries of origin, up from 99,219 in 1986. Tables 2.39 and 2.40 show the country of last permanent residence and of citizenship of immigrants. Immigrants from Asia constituted 44.3% of the influx in 1987. Immigration from Europe was 24.7%. The major source countries were: Hong Kong (10.6%), India (6.4%), Great Britain (5.6%), United States (5.2%) and the Philippines (4.8%).

Destination of immigrants. On arrival in Canada, immigrants are asked to state their intended destination. According to these records, Ontario absorbed by far the highest number of arrivals during 1987 (84,807). Quebec received 26,822 immigrants and British Columbia, 18,913. The Prairie provinces received 18,893 immigrants, the Atlantic provinces, 2,486 and the Yukon and Northwest Territories, 152.

Sex, age and marital status. The sex distribution of immigrants for 1977-87 is shown in Table 2.42. In 1987, females constituted 49.3% of the immigrants and males 50.7%. Table 2.43 gives the marital status of immigrants by sex for 1984 and 1985 and by age groups for 1986-87.

2.10.2 Internal migration

As people move from one place to another within a nation, they set up patterns of migration which differ in intensity and directional flow. These internal movements have marked effects on regional economies and influence future population growth. Thus it is of value to measure these various migration streams, such as from one province or economic region to another, from rural to urban centres and from one metropolitan area to another.

Lifetime migration by province of birth. Census figures on province of birth provide some indication on lifetime migration flows by comparing the number of persons born in a given province with their present province of residence. Such figures do not indicate the periodicity of the migrating process, and apply only to the Canadian-born population presently living in a given province. Nevertheless, they do reflect something of the major patterns of interprovincial movement over the years.

According to the 1986 Census, 85% of persons born in Canada and still living in Canada resided in their province of birth. This level was virtually unchanged since the 1971 Census.

Data from the 1986 Census (Table 2.44) show that Ontario, Alberta, British Columbia, Yukon and Northwest Territories were net gainers of lifetime migrants from other provinces, while the remaining provinces were net losers. In the provinces of Quebec and Newfoundland, only 4.4% and 4.5% of their respective populations were born in other parts of Canada, outside their province of residence. At the other extreme, 62.3% of Canadian-born residents in Yukon were born elsewhere in Canada. These percentages reflect the relatively low rate of in-migration among Canadian-born residents to these two provinces and a high rate to Yukon. At the same time, though, due to out-migration, over half (54%) of persons born in Yukon Territory were living elsewhere in Canada. In contrast, just 8% of the Quebec-born population, and 9% of Ontario-born lived outside their province of birth, a reflection of relatively low out-migration rates for these two provinces.

Migration by residence five years ago. Useful estimates of mobility and migration can be obtained in national Censuses from questions about the place of residence of each person on the preceding Census date, five years earlier. From a comparison with the location of a person's present residence, it is possible to estimate the size, directional flows and characteristics of the migrating population. The 1986 Census included questions on place of residence on June 3, 1981.

Census figures show that 43.7% of Canada's population, age 5 and over in 1981, lived in a different dwelling than they had five years earlier; 24.2% had moved within the same municipality; and 19.5% had moved from one municipality to another. The last group consisted of 13.5% who moved within the same province, 4.0% from one province to another, and 2.0% from outside Canada.

Over the past 25 years, Canadians were most mobile in the period 1971-76, when almost half (48.5%) of the population changed dwellings. The proportion of the population who moved during 1981-86 (43.7%) was the lowest since 1961. For additional information see Tables 2.45, 2.46 and 2.47.

Interprovincial migration. In 1986, just under a million people lived in a different province than they had five years earlier. Ontario was the most favoured province of destination for migrants from other provinces (30.9%), followed by Alberta (19.2%), and British Columbia (16.4%). Alberta was the largest single provincial source of interprovincial migrants (22.2%), which resulted in a net internal migration loss of 27,670 people. Ontario, British Columbia, Nova Scotia and Prince Edward Island experienced net internal migration gains. The remaining provinces, Yukon and Northwest Territories recorded losses.

Both the level and direction of interprovincial migration tend to relate to regional economic conditions. This was most apparent in the period 1976 to 1981 when — as a direct consequence of the Alberta resource boom — all provinces east of Alberta experienced net outflows of population to the benefit of Alberta and, to a lesser extent, British Columbia. Falling international oil prices in the early 1980s brought an abrupt end to the resource boom and the westward shift of population. In the first half of this decade, Ontario replaced Alberta as the preferred destination of persons moving from elsewhere in Canada.

The overall effect of migration from outside Canada (comprising immigrants and returning Canadians) was to offset the net loss of population due to internal migration for the provinces of New Brunswick, Quebec, Manitoba, Saskatchewan and Alberta. However, the 1986 Census did not count emigrants and therefore it is not possible to take into account the effects of emigration. Among provinces receiving the largest share of migrants from outside Canada were Ontario (47.7%), Quebec (15.6%), British Columbia (15.0%) and Alberta (12.1%).

Migration to and from metropolitan areas. Paralleling trends at the provincial level, more people left the Census Metropolitan Areas (CMAs) of both Calgary and Edmonton for other places in Canada than arrived from other Canadian locations between 1981 and 1986. The CMA of Edmonton recorded a net outflow of 15,555 over the five-year period, in contrast to the net inflow of 34,975 people in the five years between 1976 and 1981. Similarly, the CMA of Calgary experienced an outflow of 6,105 residents between

1981 and 1986, after registering an inflow of 66,460 between 1976 and 1981.

Nonetheless, both metropolitan areas recorded gains in total population over the first half of the decade due to natural increase and arrivals from outside Canada. Migrants from outside Canada to Calgary and Edmonton numbered 23,000 and 22,000, respectively, over the 1981-86 period.

From 1981 to 1986, Canada's four largest metropolitan areas grew through population movements from elsewhere in Canada. The population gain of 80,275 in the Toronto CMA was more than twice that of any other urban centre. Ottawa-Hull CMA (34,830), Vancouver CMA (33,140) and Montreal CMA (17,775) also experienced net population gains. This is a reversal from the 1976-81 period when the CMAs of Montreal (-105,590); Toronto (-18,240) and Ottawa-Hull (-8,010) all experienced net population losses through migration within Canada.

While less than one-third of the total population of Canada lived in the three largest urban metropolitan areas (Toronto, Montreal and Vancouver) in 1986, over half of the immigrant population lived in these urban centres. The attraction of major urban centres for immigrants was most pronounced in Quebec; 87% of the province's immigrant population lived in the Montreal metropolitan area in 1986, although only 45% of the provincial population lived in the Montreal area. In Ontario, 59% of the immigrant population lived in the Toronto metropolitan area, compared to 38% of the total provincial population in this area. A similar pattern emerged in British Columbia; 62% of the immigrant population of the province resided in the Vancouver area, compared to 48% of the total provincial population in the Vancouver area.

2.10.3 Citizenship

In 1986, 21.1 million or 84% of the Canadian population were Canadian by birth and 2.9 million or 11.5% of the Canadian population

were Canadian by naturalization. From 1981 to 1986, 610,838 landed immigrants applied for and were granted Canadian citizenship.

Among the immigrant population, 79% of those eligible to obtain Canadian citizenship had obtained it by 1986. This proportion had increased slightly from the figure of 75% recorded in the 1981 Census.

The Citizenship Act came into effect on February 15, 1977. It replaced the Canadian Citizenship Act, passed in 1947, which was the first independent naturalization law to be enacted in the Commonwealth and which created the status of a Canadian citizen as distinct from that of a British subject.

The current Citizenship Act makes equality a basic tenet of the law. It makes no distinction between citizens by birth and citizens by choice. It also treats the citizenship status of married women in their own right rather than simply in relation to that of their spouses.

Administered by the Department of the Secretary of State, through 30 citizenship courts and offices, the act covers the conditions for acquisition, retention, loss and resumption of citizenship. All adult applicants for the grant of citizenship face the same requirements, which include legal admission to Canada; three years residence in Canada; basic knowledge of Canada and of one of Canada's official languages; and compliance with the national security and criminal record provisions of the Citizenship Act. The department administers federal-provincial agreements in support of citizenship and language instruction to adult immigrants and is active in the promotion of the concept and values of Canadian citizenship among the general populace. An Annual National Citizenship Week in April, coinciding with the anniversary of the Canadian Charter of Rights and Freedoms, was established in 1987 to celebrate the special meaning and benefits of Canadian citizenship.

Sources

- 2.1 - 2.8 Census Operations Division, Statistics Canada.
- 2.9 Health Division, Statistics Canada.
- 2.10.1 Public Affairs, Department of Employment and Immigration.
- 2.10.2 Citizenship Registration and Promotion, Department of the Secretary of State.
- 2.10.3 Census Operations Division, Statistics Canada.

FOR FURTHER READING**Selected publications from Statistics Canada**

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- Women in Canada: A Statistical Report, 119 p., 1985. 89-503
- Longevity and Historical Life Tables, 1921-1981: Canada and the Provinces, 215 p., 1982. 89-506
- The Seniors Boom: Dramatic Increase in Longevity and Prospects for Better Health, 46 p., 1986. 89-515
- Quarterly Demographic Statistics, quarterly. 91-002
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- Living Alone, 20 p., 1984. 99-934
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- Current Demographic Analysis: Report on the Demographic Situation in Canada, annual. 91-209
- Household and Family Projections, Canada, Provinces and Territories, 1976-2001, 133 p., 1982. 91-522
- Population and Dwelling Counts for all Standard Levels of Census Geography, 1986 Census, 4 volumes, 1987. 92-101 to 92-104
- Population and Dwelling Counts, Provinces and Territories, 1986 Census, 12 volumes, 1987. 92-109 to 92-120
- Population and Dwelling Characteristics, National Series, 1986 Census, 4 volumes, 1987. 93-101; 93-102; 93-104; 93-106
- Population and Dwelling Characteristics, Census Divisions and Subdivisions, Profile Series, 1986 Census, 24 volumes, 1987. 94-101 to 94-124
- Population and Dwelling Characteristics, Census Tracts, Profile Series, 1986 Census, 74 volumes, 1988. 95-101 to 95-174
- Canadian Social Trends, quarterly. 11-008

More information about these publications is available from Statistics Canada. See Appendix F for a complete list of Statistics Canada offices.

TABLES

- .. not available

... not appropriate or not applicable

— nil or zero

-- too small to be expressed
- e estimate

p preliminary

r revised

certain tables may not add due to rounding

All figures of the 1971, 1976, 1981 and 1986 Censuses in Tables 2.14 – 2.21 and 2.23 have been subjected to a confidentiality procedure to prevent the possibility of associating small figures with an identifiable individual. The particular technique used is known as random rounding. Under this method, all last or unit digits in a table (including all totals) are randomly rounded (either up or down) to 0 or 5. This technique provides the strongest possible protection against direct, residual, or negative disclosures without adding any significant error to the Census data. However, since totals are independently rounded they do not necessarily equal the sum of individual rounded figures in distributions. Also, minor differences can be expected for corresponding totals and cell values in various Census tabulations.

2.1 Population summaries, selected years (thousands)

Province or territory	1961	1971	1976	1981	1986	1988 ¹
Newfoundland	458	522	558	568	568	568
Prince Edward Island	105	112	118	123	127	129
Nova Scotia	737	789	829	847	873	884
New Brunswick	598	635	677	696	710	714
Quebec	5,259	6,028	6,234	6,438	6,540	6,639
Ontario	6,236	7,703	8,264	8,625	9,114	9,431
Manitoba	922	988	1,022	1,026	1,071	1,085
Saskatchewan	925	926	921	968	1,010	1,011
Alberta	1,332	1,628	1,838	2,238	2,375	2,401
British Columbia	1,629	2,185	2,467	2,744	2,889	2,984
Yukon	15	18	22	23	24	25
Northwest Territories	23	35	43	46	52	52
Canada	18,238	21,568	22,993	24,343	25,354	25,923

¹ Preliminary postcensal estimates.

2.2 Total population growth, Canada, 1851-1988

Census year	Population No.	Increase during intercensal period		Average annual rate of population growth %
		No.	%	
1851	2,436,297	...	...	...
1861	3,229,633	793,336	32.6	2.9
1871	3,689,257	459,624	14.2	1.3
1881	4,324,810	635,553	17.2	1.6
1891	4,833,239	508,429	11.8	1.1
1901	5,371,315	538,076	11.1	1.1
1911	7,206,643	1,835,328	34.2	3.0
1921	8,787,949	1,581,306	21.9	2.0
1931	10,376,786	1,588,837	18.1	1.7
1941	11,506,655	1,129,869	10.9	1.0
1951 ¹	14,009,429	2,502,774	21.8	1.7
1956	16,080,791	2,071,362	14.8	2.8
1961	18,238,247	2,157,456	13.4	2.5
1966	20,014,880	1,776,633	9.7	1.9
1971	21,568,311	1,553,431	7.8	1.5
1976	22,992,604	1,424,293	6.6	1.3
1981	24,343,181	1,350,577	5.9	1.1
1986	25,354,064	1,010,883	4.2	0.8
1988 ²	25,923,300	...	...	...

¹ Newfoundland included for the first time. Excluding Newfoundland, the increase would have been 2,141,358 or 18.6%.

² Preliminary postcensal estimates.

2.3 Components of population growth, Canada¹, 1851-1986

Period	Total population growth '000	Births '000	Deaths '000	Natural increase '000	Ratio of natural increase to total growth %	Immigration '000	Emigration ² '000	Net migration '000	Ratio of net migration to total growth %	Population at the end of the Census period '000
1851-1861	793	1,281	670	611	77.0	352	170	182	23.0	3,230
1861-1871	460	1,370	760	610	132.6	260	410	-150	-32.6	3,689
1871-1881	636	1,480	790	690	108.5	350	404	-54	-8.5	4,325
1881-1891	508	1,524	870	654	128.7	680	826	-146	-28.7	4,833
1891-1901	538	1,548	880	668	124.2	250	380	-130	-24.2	5,371
1901-1911	1,835	1,925	900	1,025	55.9	1,550	740	810	44.1	7,207
1911-1921	1,581	2,340	1,070	1,270	80.3	1,400	1,089	311	19.7	8,788
1921-1931	1,589	2,420	1,060	1,360	85.5	1,200	970	230	14.5	10,377
1931-1941	1,130	2,294	1,072	1,222	108.1	149	241	-92	-8.1	11,507
1941-1951 ³	2,503	3,212	1,220	1,992	92.3	548	382	166	7.7	14,009
1951-1956	2,071	2,106	633	1,473	71.1	783	185	598	28.9	16,081
1956-1961	2,157	2,362	687	1,675	77.7	760	378	482	22.3	18,238
1961-1966	1,777	2,249	731	1,518	85.4	539	280	259	14.6	20,015
1966-1971	1,553	1,856	766	1,090	70.2	890	427	463	29.8	21,568
1971-1976	1,424	1,758	823	934	65.6	841	352	489	34.4	22,993
1976-1981	1,288	1,820	842	978	75.9	588	278	310	24.1	24,343
1981-1986	1,011	1,873	885	988	97.7	500	235	264	26.1	25,354

¹ Includes Newfoundland since 1951.² Emigration figures are estimated by the residual method.³ Data on growth components shown for 1941-51 were obtained by including data for Newfoundland for 1949-50 and 1950-51 only.

2.4 Percentage change of population, intercensal periods

Province or territory	Percentage change				
	1961-66	1966-71	1971-76	1976-81	1981-86
Newfoundland	7.8	5.8	6.8	1.8	0.1
Prince Edward Island	3.7	2.9	5.9	3.6	3.4
Nova Scotia	2.6	4.4	5.0	2.3	3.0
New Brunswick	3.2	2.9	6.7	2.8	2.0
Quebec	9.9	4.1	3.4	3.3	1.6
Ontario	11.6	10.7	7.3	4.4	5.7
Manitoba	4.5	2.6	3.4	0.5	4.4
Saskatchewan	3.3	-3.0	-40.5	5.1	4.3
Alberta	9.9	11.3	12.9	21.7	6.1
British Columbia	15.0	16.6	12.9	11.3	5.3
Yukon	-1.7	27.9	18.8	6.0	1.5
Northwest Territories	25.0	21.1	22.4	7.4	14.2
Canada	9.7	7.8	6.6	5.9	4.2

2.5 Total population, Canada and provinces, selected years, 1921-88 (thousands)

Year	Nfld.	PEI	NS	NB	Que.	Ont.	Man.	Sask.	Alta.	BC	YT	NWT	Canada
1921	—	88.6	523.8	387.9	2,360.5	2,933.7	610.1	757.5	588.5	524.6	4.1	8.1	8,787.4
1931	—	88.0	512.8	408.2	2,874.7	3,431.7	700.1	921.8	731.6	694.3	4.2	9.3	10,376.7
1941	—	95.0	578.0	457.4	3,331.9	3,787.7	729.7	896.0	796.2	817.8	5.0	12.0	11,506.7
1951	361.4	98.4	642.6	515.7	4,055.7	4,597.6	776.5	831.7	939.5	1,165.2	9.1	16.0	14,009.4
1956	415.1	99.3	694.7	554.6	4,628.4	5,404.9	850.0	880.7	1,123.1	1,398.5	12.2	19.3	16,080.8
1961	457.9	104.6	737.0	597.9	5,259.2	6,236.1	921.7	952.2	1,332.0	1,629.1	14.6	23.0	18,265.3
1966	493.4	108.5	756.0	616.8	5,780.8	6,960.9	963.1	955.4	1,463.2	1,873.7	14.4	28.7	20,014.9
1971	522.1	111.6	789.0	634.6	6,027.8	7,703.1	988.2	926.2	1,627.9	2,184.6	18.4	34.8	21,568.3
1976	557.7	118.2	828.6	677.3	6,234.5	8,264.5	1,021.5	921.3	1,838.0	2,466.6	21.8	42.6	22,992.6
1981	567.7	122.5	847.4	696.4	6,438.4	8,625.1	1,026.2	968.3	2,237.7	2,744.5	23.2	45.7	24,343.2
1986	568.3	126.6	873.2	710.4	6,540.3	9,113.5	1,071.2	1,010.2	2,375.3	2,889.2	23.5	52.2	25,354.1
1987 ¹	568.2	127.3	878.9	712.3	6,592.6	9,270.7	1,079.0	1,014.0	2,380.4	2,925.7	24.4	51.7	25,625.1
1988 ¹	568.1	128.7	883.9	714.4	6,639.2	9,430.8	1,084.7	1,011.2	2,401.1	2,984.0	25.3	51.8	25,923.3

¹ Preliminary postcensal estimates.

2.6 Population of incorporated cities and towns of 50,000 and over

Incorporated city or town	Year of incorporation	1976	1981	1986
Beauport, Que.	1976	55,339	60,447	62,869
Brampton, Ont.	1974	103,459	149,030	188,498
Brantford, Ont.	1877	66,950*	74,315*	76,146
Brossard, Que.	1958	37,641	52,232	57,441
Burlington, Ont.	1915	104,314*	114,853	116,675
Calgary, Alta.	1893	469,917*	592,743*	636,104*
Cambridge, Ont.	1973	72,383	77,183	79,920*
Charlesbourg, Que.	1976	63,147	68,326	68,996
Chicoutimi, Que.	1976	57,737	60,064	61,083*
Dartmouth, NS	1961	65,341	62,277	65,243*
Edmonton, Alta.	1904	461,361*	532,246*	573,982*
Etobicoke, Ont.	1983	297,109	298,713	302,973
Gatineau, Que.	1975	73,479	74,988	81,244
Gloucester, Ont.	1981	56,516	72,859	89,810
Guelph, Ont.	1879	67,538	71,207	78,235
Halifax, NS	1841	117,882	114,594	113,577
Hamilton, Ont.	1846	312,003	306,434	306,728
Hull, Que.	1875	61,039	56,225	58,722
Jonquière, Que.	1976	60,691	60,354	58,467
Kamloops, BC	1973	58,311	64,048	61,773
Kelowna, BC	1973	51,955	59,196	61,213
Kingston, Ont.	1846	56,032	52,616	55,050
Kitchener, Ont.	1912	131,870*	139,734	150,604
LaSalle, Que.	1958	76,713	76,299	75,621
Laval, Que.	1965	246,243	268,335	284,164
Lethbridge, Alta.	1906	46,752	54,072	58,841*
London, Ont.	1855	240,392	254,280	269,140
Longueuil, Que.	1920	122,429	124,320	125,441
Markham, Ont.	1971	56,206	77,037	114,597
Mississauga, Ont.	1968	250,017*	315,056	374,005
Moncton, NB	1973	55,934	54,743	55,468*
Montreal, Que.	1832	1,080,546	980,354	1,015,420*
Montreal N., Que.	1859	97,250	94,914	90,303
Nepean, Ont.	1978	76,947	84,361*	95,490
Niagara Falls, Ont.	1903	69,423	70,960	72,107
North Bay, Ont.	1925	51,639	51,268	50,623
North York, Ont.	1979	558,398	559,521	556,297
Oakville, Ont.	1857	68,950*	75,773	87,107
Oshawa, Ont.	1924	107,023*	117,519	123,651
Ottawa, Ont.	1854	304,462	295,163	300,763
Peterborough, Ont.	1905	59,683	60,620	61,049
Prince George, BC	1915	59,929	67,559	67,621
Quebec, Que.	1832	177,082*	166,474	164,580*
Red Deer, Alta.	1913	32,184	46,393*	54,425
Regina, Sask.	1903	149,593*	162,613	175,064*
Sainte-Foy, Que.	1955	71,237	68,883	69,615
Saint-Hubert, Que.	1958	49,706	60,573	66,218
Saint John, NB	1785	85,956	80,521	76,381*
Saint-Laurent, Que.	1955	64,404	65,900	67,002
Saint-Léonard, Que.	1963	78,452	79,429	75,947
St. Catharines, Ont.	1876	123,351	124,018	123,455
St. John's, Nfld.	1888	86,576*	83,770*	96,216*
Saskatoon, Sask.	1906	133,750*	154,210	177,641*
Sault Ste Marie, Ont.	1912	81,048	82,697	80,905
Scarborough, Ont.	1983	387,149*	443,353	484,676
Sherbrooke, Que.	1875	76,804*	74,075	74,438*
Sudbury, Ont.	1930	97,604*	91,829	88,717
Thunder Bay, Ont.	1970	111,476	112,486	112,272
Toronto, Ont.	1834	633,318	599,217	612,289
Trois-Rivières, Que.	1857	52,518	50,466	50,122
Vancouver, BC	1886	410,188	414,281*	431,147*
Vaughan, Ont.	1971	17,782	29,674	65,058
Verdun, Que.	1912	68,013	61,287	60,246
Victoria, BC	1862	62,551	64,379	66,303
Waterloo, Ont.	1948	46,623	49,428	58,718
Windsor, Ont.	1892	196,526	192,083	193,111*
Winnipeg, Man. ¹	1972	560,874*	564,473*	594,551
York, Ont.	1983	141,367	134,617	135,401

* Indicates a boundary change since the preceding Census. Population totals in these cases are based on a different area, the boundaries at that particular Census year.

¹ Includes St. James-Assiniboia, Man.

2.7 Population of capital cities, selected Census years

City	1961	1971	1976	1981	1986
St. John's, Nfld.	63,633	88,102	86,576	83,770	96,216
Charlottetown, PEI	18,318	19,133	17,063	15,282	15,776
Halifax, NS	92,511	122,035	117,882	114,594	113,577
Fredericton, NB	19,683	24,254	45,248	43,723	44,352
Quebec, Que.	171,979	186,088	177,082	166,474	164,580
Toronto, Ont.	672,407	712,786	633,318	599,217	612,289
Winnipeg, Man.	265,429	246,246	560,874	564,473	594,551
Regina, Sask.	112,141	139,469	149,593	162,613	175,064
Edmonton, Alta.	281,027	438,152	461,361	532,246	573,982
Victoria, BC	54,941	61,761	62,551	64,379	66,303
Whitehorse, YT	5,031	11,217	13,311	14,814	15,199
Yellowknife, NWT		6,122	8,256	9,483	11,753
Ottawa, Ont.	268,206	302,341	304,462	295,163	300,763

¹ Incorporated after June 1, 1961.

2.8 Population of Census Metropolitan Areas, selected years, 1961-87

Census Metropolitan Area	1961	1971	1981 ^{1,2}	1986	1987 ³ '000
Calgary	279,062	403,319	625,966	671,326 ⁴	677.4
Chicoutimi-Jonquière	127,616	133,703	158,229	158,468	159.8
Edmonton	359,821	495,702	740,882	785,465 ⁴	788.4
Halifax	193,353	222,637	277,727	295,990	300.0
Hamilton	401,071	498,523	542,095	557,029	566.9
Kitchener	154,864	226,846	287,801	311,195	316.9
London	226,669	286,011	326,817	342,302	347.5
Montreal	2,215,627	2,743,208	2,862,286	2,921,357 ⁴	2,942.7
Oshawa	...	120,318 ¹	186,446	203,543	210.4
Ottawa-Hull	457,038	602,510	743,821	819,263	833.1
Quebec	379,067	480,502	583,820	603,267	607.4
Regina	113,749	140,734	173,226	186,521	189.4
Saint John, NB	98,083	106,744	121,012	121,265	122.0
St. Catharines-Niagara	257,796	303,429	342,645	343,258	346.9
St. John's, Nfld.	106,666	131,814	154,835	161,901	162.2
Saskatoon	95,564	126,449	175,058	200,665	204.0
Sherbrooke	...	...	125,183	129,960	132.2
Sudbury	127,446	155,424	156,121	148,877	147.5
Thunder Bay	102,085	112,093	121,948	122,217	123.1
Toronto	1,919,409	2,628,043	3,130,392	3,427,168	3,501.6
Trois-Rivières	...	...	125,343	128,888	130.6
Vancouver	826,798	1,082,352	1,268,183	1,380,729	1,412.7
Victoria	155,763	195,800	241,450	255,547 ⁴	260.4
Windsor	217,215	258,643	250,885	253,988	256.7
Winnipeg	476,543	540,262	592,061	625,304	631.1

Note: 1987 figures are rounded independently to the nearest hundred.

¹ Adjusted due to boundary changes.

² Based on 1986 Census Metropolitan Area.

³ Estimates obtained aggregating the Census division regression-nested estimates.

⁴ Excludes population of one or more incompletely enumerated Indian reserves or Indian settlements.

2.9 Land area and population density, Census years

Province or territory	Land area km ²	Population per km ²				
		1961	1971	1976	1981	1986
Newfoundland	371 635	1.24	1.41	1.51	1.5	1.5
Prince Edward Island	5 660	18.50	19.73	20.90	21.6	22.4
Nova Scotia	52 841	13.95	14.93	15.87	16.0	16.5
New Brunswick	71 569	8.29	8.80	9.39	9.7	9.9
Quebec	1 357 655	3.88	4.44	4.59	4.7	4.8
Ontario	916 734	7.00	8.64	9.27	9.4	9.9
Manitoba	547 704	1.68	1.80	1.86	1.9	2.0
Saskatchewan	570 113	1.62	1.63	1.62	1.7	1.8
Alberta	638 233	2.07	2.53	2.85	3.5	3.7
British Columbia	892 677	1.75	2.35	2.65	3.1	3.2
Yukon	531 844	0.03	0.03	0.04	0.04	0.04
Northwest Territories	3 246 389	0.01	0.01	0.01	0.01	0.01
Canada	9 203 054	1.98	2.34	2.49	2.6	2.8

2.10 Population by sex distribution and by province, 1987 and 1988 (thousands)

Province or territory	Population, 1987 ¹		Population, 1988 ¹	
	Male	Female	Male	Female
Newfoundland	283.7	284.5	283.3	284.9
Prince Edward Island	63.1	64.2	63.8	65.0
Nova Scotia	433.1	445.8	435.1	448.8
New Brunswick	351.9	360.4	352.4	362.0
Quebec	3,230.8	3,361.7	3,252.8	3,386.4
Ontario	4,553.6	4,717.0	4,634.8	4,796.0
Manitoba	532.1	546.9	534.9	549.8
Saskatchewan	506.6	507.4	504.8	506.4
Alberta	1,198.4	1,182.0	1,206.5	1,194.6
British Columbia	1,447.8	1,477.8	1,476.1	1,507.9
Yukon	12.7	11.7	13.2	12.1
Northwest Territories	27.1	24.6	27.1	24.8
Canada	12,641.0	12,984.1	12,784.6	13,138.7

Note: Each figure has been rounded independently to the nearest hundred.

¹ Preliminary postcensal estimates.

2.11 Population by age distribution, 1976, 1981 and 1986

Age group	Number			Percentage		
	1976	1981	1986 ¹	1976	1981	1986 ¹
0 - 4 years	1,731,995	1,783,370	1,810,190	7.5	7.3	7.2
5 - 9 "	1,887,805	1,776,860	1,794,975	8.2	7.3	7.1
10 - 14 "	2,276,375	1,920,870	1,786,800	9.9	7.9	7.1
15 - 19 "	2,345,255	2,314,885	1,924,855	10.2	9.5	7.6
20 - 24 "	2,133,805	2,343,810	2,253,345	9.3	9.6	8.9
25 - 29 "	1,993,060	2,177,610	2,341,510	8.7	8.9	9.3
30 - 34 "	1,627,485	2,038,580	2,185,645	7.1	8.4	8.6
35 - 39 "	1,328,790	1,630,250	2,026,175	5.8	6.7	8.0
40 - 44 "	1,268,220	1,337,905	1,614,725	5.5	5.5	6.4
45 - 49 "	1,252,845	1,255,355	1,315,885	5.4	5.2	5.2
50 - 54 "	1,220,180	1,243,480	1,229,330	5.3	5.1	4.9
55 - 59 "	1,019,035	1,179,915	1,203,195	4.4	4.8	4.8
60 - 64 "	905,400	979,315	1,125,130	3.9	4.0	4.4
65 - 69 "	720,815	844,330	911,765	3.1	3.5	3.6
70 - 74 "	533,725	633,415	738,320	2.3	2.6	2.9
75 years and over	747,805	883,230	1,047,490	3.3	3.6	4.1
Canada	22,992,605	24,343,180	25,309,330	100.0	100.0	100.0

¹ The figures for 1986 exclude the population on 136 incompletely enumerated Indian reserves and settlements. The total population on these reserves was estimated to be about 45,000 in 1986.

2.12 Population by age group and sex, by province, 1988¹ (thousands)

Province or territory	0-4 years		5-9 years		10-14 years		15-19 years	
	Male	Female	Male	Female	Male	Female	Male	Female
Newfoundland	21.2	20.1	23.5	22.6	26.9	25.3	28.7	27.5
Prince Edward Island	5.0	4.6	5.1	4.8	5.2	4.9	5.3	4.9
Nova Scotia	31.4	29.7	30.9	30.0	32.6	30.8	35.9	33.9
New Brunswick	25.0	23.9	26.8	25.1	28.6	27.7	30.4	28.8
Quebec	219.0	208.2	239.1	226.8	233.7	221.4	232.6	220.8
Ontario	339.0	322.7	323.2	308.3	321.6	306.2	354.0	334.5
Manitoba	42.4	40.4	40.3	38.2	40.3	38.3	42.6	40.4
Saskatchewan	43.6	41.0	42.7	40.4	39.9	38.5	39.1	37.3
Alberta	106.4	101.4	96.6	91.8	87.6	83.5	94.4	88.8
British Columbia	107.9	101.2	103.8	98.7	98.7	93.6	108.1	103.2
Yukon	1.3	1.2	1.1	1.0	0.9	0.8	1.1	1.0
Northwest Territories	3.3	3.1	2.9	2.7	2.5	2.3	2.7	2.5
Canada	945.4	897.6	936.0	890.4	918.5	873.4	975.0	923.6

2.12 Population by age group and sex, by province, 1988¹ (thousands) (concluded)

Province or territory	20-24 years		25-34 years		35-44 years		45-54 years	
	Male	Female	Male	Female	Male	Female	Male	Female
Newfoundland	25.1	25.7	45.9	48.2	41.7	41.6	25.7	24.9
Prince Edward Island	5.4	5.5	10.5	10.7	9.0	8.9	6.1	5.9
Nova Scotia	39.1	37.5	77.1	77.9	63.9	64.3	43.0	43.2
New Brunswick	30.5	29.8	61.0	62.0	52.7	52.5	33.7	33.6
Quebec	273.0	267.0	611.8	616.9	514.5	522.1	352.3	361.5
Ontario	392.9	383.6	832.2	848.4	700.2	713.5	494.8	495.6
Manitoba	44.7	43.8	94.4	93.0	74.5	74.6	50.5	50.6
Saskatchewan	40.3	39.3	86.8	85.3	64.7	62.0	45.1	44.5
Alberta	103.3	101.8	243.8	238.1	180.6	173.8	114.0	109.8
British Columbia	109.1	107.7	254.8	261.9	231.7	229.4	158.5	153.6
Yukon	1.0	1.0	2.8	2.8	2.4	2.1	1.3	1.0
Northwest Territories	2.5	2.4	5.1	5.1	4.0	3.2	2.0	1.8
Canada	1,066.9	1,045.1	2,326.4	2,350.3	1,939.8	1,948.2	1,327.1	1,325.9
	55-64 years		65-69 years		70 + years		All ages	
	Male	Female	Male	Female	Male	Female	Male	Female
Newfoundland	20.7	20.5	9.0	9.4	14.8	19.1	283.3	284.9
Prince Edward Island	5.1	5.3	2.3	2.7	4.8	6.7	63.8	65.0
Nova Scotia	36.0	39.0	16.1	19.1	29.3	43.3	435.1	448.8
New Brunswick	28.5	30.7	12.5	14.8	22.5	33.0	352.4	362.0
Quebec	297.1	327.9	109.2	136.2	170.8	277.6	3,252.8	3,386.4
Ontario	436.1	459.6	169.2	202.7	271.4	420.9	4,634.8	4,796.0
Manitoba	46.2	49.4	20.2	24.6	38.7	56.5	534.9	549.8
Saskatchewan	43.6	44.5	19.4	21.7	40.0	52.0	504.8	506.4
Alberta	90.4	89.4	32.7	38.0	56.5	78.2	1,206.5	1,194.6
British Columbia	139.5	141.9	59.3	70.4	104.7	146.3	1,476.1	1,507.9
Yukon	0.8	0.6	0.2	0.2	0.2	0.2	13.2	12.1
Northwest Territories	1.3	0.9	0.3	0.3	0.5	0.4	27.1	24.8
Canada	1,145.3	1,209.9	450.4	540.1	754.1	1,134.2	12,784.6	13,138.7

Note: Each figure has been rounded independently to the nearest hundred.

¹ Preliminary postcensal estimates.

2.13 Population by marital status, age groups and sex, 1988¹ (thousands)

Age group	Sex	Single	Married	Widowed	Divorced	Total
0 - 14 years	M	2,799.9	—	—	—	2,799.9
	F	2,661.4	—	—	—	2,661.4
	T	5,461.3	—	—	—	5,461.3
15 - 24 years	M	1,857.6	179.7	0.6	3.9	2,041.8
	F	1,575.7	381.4	1.6	10.0	1,968.7
	T	3,433.4	561.1	2.2	13.9	4,010.6
25 - 34 years	M	766.7	1,483.3	2.0	74.4	2,326.4
	F	508.8	1,721.1	8.2	112.3	2,350.4
	T	1,275.5	3,204.4	10.2	186.6	4,676.7
35 - 44 years	M	210.6	1,608.0	5.7	115.6	1,939.9
	F	162.4	1,595.7	25.0	165.1	1,948.2
	T	372.9	3,203.7	30.6	280.7	3,887.9
45 - 54 years	M	92.7	1,136.3	13.4	84.8	1,327.2
	F	76.3	1,075.7	62.7	111.3	1,326.0
	T	168.9	2,212.0	76.0	196.1	2,653.0
55 - 64 years	M	81.2	970.8	36.7	56.5	1,145.2
	F	69.8	886.1	183.3	70.8	1,210.0
	T	151.0	1,856.8	220.1	127.3	2,355.2
65 years and over	M	86.0	923.5	163.7	31.2	1,204.4
	F	136.9	698.3	796.9	42.2	1,674.3
	T	222.8	1,621.8	960.6	73.4	2,878.6
Canada	M	5,894.5	6,301.7	222.0	366.4	12,784.6
	F	5,191.3	6,358.2	1,077.6	511.7	13,138.8
	T	11,085.9	12,659.8	1,299.6	878.0	25,923.3

Note: Each figure has been rounded independently to the nearest hundred.

¹ Preliminary postcensal estimates.

2.14 Population by mother tongue and home language, 1986 Census¹

Language	Mother tongue		Home language ²	
	No.	%	No.	%
Single responses	24,354,390	96.2	23,862,330	95.4
English	15,334,085	60.6	16,595,535	66.3
French	6,159,740	24.3	5,798,470	23.2
Non-official languages	2,860,565	11.3	1,468,325	5.9
Aboriginal languages ³	138,060	0.5	97,275	0.4
Cree	57,650	0.2	40,685	0.2
Ojibway	16,385	0.1	9,495	--
Inuktitut	21,050	0.1	17,570	0.1
Other aboriginal languages	42,975	0.2	29,525	0.1
Italian	455,820	1.8	271,835	1.1
Romanian	12,885	0.1	6,050	--
Portuguese	153,990	0.6	105,420	0.4
Spanish	83,130	0.3	55,760	0.2
German	438,675	1.7	112,550	0.4
Yiddish	22,665	0.1	6,660	--
Dutch	123,665	0.5	14,430	0.1
Flemish	7,260	--	1,225	--
Swedish	11,970	--	1,550	--
Danish	20,525	0.1	1,840	--
Norwegian	13,185	0.1	790	--
Gaelic languages	4,645	--	410	--
Ukrainian	208,410	0.8	46,150	0.2
Russian	24,860	0.1	9,950	--
Macedonian	11,500	--	7,030	--
Croatian ⁴	29,680	0.1	19,065	0.1
Serbian ⁴	7,870	--	4,805	--
Slovenian	6,590	--	2,405	--
Czech	22,945	0.1	9,175	--
Slovak	15,460	0.1	5,155	--
Polish	123,120	0.5	55,150	0.2
Latvian (Lettish)	10,250	--	4,300	--
Lithuanian	10,295	--	8,370	--
Finnish	25,765	0.1	11,365	--
Estonian	10,795	--	5,540	--
Hungarian	69,000	0.3	23,960	0.1
Greek	110,350	0.4	72,550	0.3
Armenian	17,520	0.1	13,610	0.1
Turkic languages	4,525	--	2,635	--
Arabic	40,665	0.2	22,010	0.1
Hebrew	7,545	--	2,795	--
Indo-Iranian languages	138,585	0.5	100,295	--
Persian (Farsi)	12,085	--	7,765	--
Bengali	3,320	--	5,195	--
Hindi	18,205	0.1	9,630	--
Punjabi	63,640	0.3	47,865	0.2
Urdu	12,225	--	8,295	--
Indo-Iranian languages (not incl. elsewhere)	29,120	0.1	21,545	0.1
Japanese	18,140	0.1	9,200	--
Korean	19,150	0.1	14,340	0.1
Chinese	266,560	1.1	230,480	0.9
Thai	7,180	--	7,020	--
Vietnamese	41,560	0.2	40,345	0.2
Tagalog (Pilipino)	42,420	0.2	25,290	0.1
Other languages	40,365	0.2	10,015	--
Multiple responses	954,940	3.8	1,159,675	4.6
English and French	332,610	1.3	351,905	1.4
English and non-official language(s)	525,720	2.1	712,445	2.8
French and non-official language(s)	36,310	0.1	40,055	0.2
English, French and non- official language(s)	46,590	0.2	47,755	0.2
Non-official languages	13,715	0.1	7,510	--
Canada ²	25,309,330	100.0	25,022,005	100.0

¹ For the first time in the 1986 Census, Canadians were allowed to report more than one language. Consequently, considerable care must be exercised when comparing the 1986 data with previous Censuses.

² The question on mother tongue was asked to all Canadians, but the question on language spoken most often at home was answered by a sample of one-in-five households. This sample excluded persons in institutions such as prisons and nursing homes.

³ Census enumerators were refused entry into 136 Indian reserves and Indian settlements. The population missed has been estimated at about 45,000 persons, that is approximately 8% of the total aboriginal population.

⁴ Some 3,185 persons have also reported "Serbo-Croatian" as mother tongue and 1,375 as home language.

2.15 Distribution of population by mother tongue and home language, by province, 1986 Census¹

Province or territory	Mother tongue						Home language					
	English		French		Other		English		French		Other	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Newfoundland	561,300	98.8	2,670	0.5	4,375	0.8	559,770	99.2	2,110	0.4	2,135	0.4
Prince Edward Island	119,175	94.1	5,920	4.7	1,555	1.2	121,070	96.8	3,485	2.8	535	0.4
Nova Scotia	818,905	93.8	35,810	4.1	18,450	2.1	829,790	96.0	24,720	2.9	9,595	1.1
New Brunswick	462,935	65.3	237,570	33.5	8,940	1.3	478,125	68.1	219,350	31.3	4,385	0.6
Quebec	678,785	10.4	5,408,980	82.8	444,695	6.8	796,695	12.3	5,343,210	82.8	314,600	4.9
Ontario	7,097,920	78.0	484,265	5.3	1,519,505	16.7	7,798,355	86.6	340,545	3.8	862,270	9.6
Manitoba	780,015	73.4	51,775	4.9	231,220	21.8	915,415	87.2	29,765	2.8	104,130	9.9
Saskatchewan	827,250	81.9	23,720	2.3	158,655	15.7	934,890	93.8	8,980	0.9	52,835	5.3
Alberta	1,946,725	82.3	56,245	2.4	362,860	15.3	2,153,675	92.0	24,910	1.1	161,670	6.9
British Columbia	2,366,805	82.1	45,845	1.6	470,725	16.3	2,605,025	91.4	17,575	0.6	226,990	8.0
Yukon	20,930	89.1	620	2.6	1,950	8.3	22,665	97.0	275	1.2	415	1.8
Northwest Territories	28,905	55.3	1,420	2.7	21,920	42.0	34,430	66.2	755	1.5	16,855	32.4
Canada	15,709,650	62.1	6,354,840	25.1	3,244,850	12.8	17,249,900	68.9	6,015,680	24.0	1,756,425	7.0

¹ For the first time in the 1986 Census, Canadians were allowed to report more than one language. The data shown in this table have been adjusted to improve the comparability with previous Censuses. Multiple responses have been distributed among the component languages using the same proportions as in the 1981 Census.

2.16 Population by official language, 1986 Census

Province or territory	English only		French only		Both English and French		Neither English nor French		Total
	No.	%	No.	%	No.	%	No.	%	No.
Newfoundland	548,155	97.2	90	--	14,850	2.6	910	0.2	564,005
Prince Edward Island	112,950	90.3	210	0.2	11,780	9.4	150	0.1	125,090
Nova Scotia	790,900	91.5	2,055	0.2	69,645	8.1	1,550	0.2	864,150
New Brunswick	411,530	58.6	85,055	12.1	204,190	29.1	1,080	0.2	701,860
Quebec	369,065	5.7	3,808,560	59.0	2,226,745	34.5	50,120	0.8	6,454,485
Ontario	7,745,550	86.1	55,470	0.6	1,057,630	11.7	142,525	1.6	9,001,170
Manitoba	940,865	89.7	2,180	0.2	92,565	8.8	13,710	1.3	1,049,315
Saskatchewan	942,745	94.6	580	0.1	47,270	4.7	6,110	0.6	996,700
Alberta	2,161,695	92.4	2,125	0.1	149,815	6.4	26,630	1.1	2,340,265
British Columbia	2,630,065	92.3	1,330	--	176,185	6.2	42,005	1.5	2,849,585
Yukon	21,305	91.2	10	--	2,005	8.6	40	0.2	23,360
Northwest Territories	42,070	80.9	65	0.1	3,485	6.7	6,400	12.3	52,020
Canada	16,716,900	66.8	3,957,730	15.8	4,056,160	16.2	291,220	1.2	25,022,005

2.17 Population by place of birth, 1981 and 1986¹ Censuses (based on 20% sample data)

Place of birth	1981		1986	
	No.	%	No.	%
Non-immigrant population	20,240,160	84.0	21,113,855	84.4
Born in Canada	20,200,515	83.9	21,078,070	84.2
Born in province of residence	17,077,965	70.9	17,832,655	71.3
Born in other province	*3,122,550	13.0	3,245,415	13.0
Born outside of Canada ²	39,640	0.2	35,790	0.1

2.17 Population by place of birth, 1981 and 1986¹ Censuses (based on 20% sample data) (concluded)

Place of birth	1981		1986	
	No.	%	No.	%
Immigrant population	3,843,335	16.0	3,908,150	15.6
United States	301,525	1.3	282,025	1.1
Other Americas ³	107,335	0.5	147,795	0.6
Jamaica	77,950	0.3	87,605	0.3
Other Caribbean and Bermuda ⁴	95,280	0.4	105,835	0.4
Italy	384,775	1.6	366,820	1.5
United Kingdom	878,985	3.7	793,075	3.2
West Germany	155,265	0.7	158,035	0.6
Other Europe ⁵	1,148,830	4.8	1,117,170	4.5
Africa	101,745	0.4	114,415	0.4
India	109,160	0.5	130,055	0.5
Other Asia ⁶	427,020	1.8	562,545	2.2
Oceania and other ⁷	55,470	0.2	42,780	0.2
Canada	24,083,500	100.0	25,022,005	100.0

¹ Excludes 1986 Census data for one or more incompletely enumerated Indian reserves or Indian settlements.

² Includes persons born outside Canada who have a Canadian citizenship by birth and have not immigrated to Canada.

³ Includes countries of North, Central and South America other than the United States of America.

⁴ Excludes Jamaica.

⁵ Includes all European countries except Italy, United Kingdom and West Germany.

⁶ Excludes India.

⁷ Includes other places of birth outside Canada as well as persons born in Canada who do not have a Canadian citizenship by birth, but have subsequently immigrated to Canada.

2.18 Population by aboriginal origins, showing single and multiple origins, on and off Indian reserves and settlements, 1986¹ (based on 20% sample data)

Aboriginal origins ²	Province or territory						
	Nfld.	PEI	NS	NB	Que.	Ont.	Man.
Total population ³	564,005	125,090	864,150	701,855	6,454,490	9,001,170	1,049,320
Total aboriginal origins (single and multiple) ⁴	9,555	1,290	14,220	9,375	80,940	167,375	85,235
Single origins:							
Total aboriginal	3,825	415	5,960	3,885	49,320	55,560	55,410
North American Indian	1,745	375	5,570	3,685	37,150	51,165	40,960
Métis	270	35	255	190	5,700	3,715	14,270
Inuit	1,810	—	135	10	6,470	675	185
Multiple origins:							
Total aboriginal	5,730	875	8,260	5,495	31,625	111,820	29,820
North American Indian and non-aboriginal ⁵	2,695	720	7,240	4,830	25,105	95,415	10,515
North American Indian and Métis	—	—	30	10	180	400	1,450
North American Indian and Inuit	5	—	15	—	55	25	30
Métis and non-aboriginal	680	110	625	370	4,570	10,610	14,605
Métis and Inuit	20	—	—	—	10	—	10
Inuit and non-aboriginal	1,750	25	150	105	580	1,590	195
North American Indian, Métis and non-aboriginal	45	15	190	110	875	3,095	2,740
North American Indian, Inuit and non-aboriginal	115	5	5	—	145	220	70
North American Indian, Métis and Inuit	—	—	—	—	—	—	10
Métis, Inuit and non-aboriginal	330	—	—	5	25	50	15
North American Indian, Métis, Inuit and non-aboriginal	90	—	10	65	75	395	185

2.18 Population by aboriginal origins, showing single and multiple origins, on and off Indian reserves and settlements, 1986¹ (based on 20% sample data) (concluded)

Aboriginal origins ²	Province or territory					
	Sask.	Alta.	BC	YT	NWT	Canada
Total population ³	996,695	2,340,265	2,849,590	23,360	52,020	25,022,010
Total aboriginal origins (single and multiple) ⁴	77,650	103,930	126,625	4,995	30,530	711,725
Single origins:						
Total aboriginal	55,645	51,665	61,130	3,280	27,175	373,260
North American Indian	43,385	34,490	56,955	3,165	7,590	286,230
Métis	12,220	16,880	3,930	80	2,205	59,745
Inuit	40	295	240	35	17,385	27,290
Multiple origins:						
Total aboriginal	22,005	52,260	65,495	1,715	3,355	338,460
North American Indian and non-aboriginal ⁵	8,455	28,470	53,560	1,545	845	239,395
North American Indian and Métis	1,150	1,675	345	30	280	5,545
North American Indian and Inuit	15	20	30	5	85	275
Métis and non-aboriginal	10,085	17,260	9,135	85	765	68,895
Métis and Inuit	10	5	5	—	25	90
Inuit and non-aboriginal	55	445	500	20	750	6,175
North American Indian, Métis and non-aboriginal	2,160	4,020	1,665	25	495	15,440
North American Indian, Inuit and non-aboriginal	—	75	45	5	60	740
North American Indian, Métis and Inuit	5	10	—	—	15	45
Métis, Inuit and non-aboriginal	20	70	25	—	30	570
North American Indian, Métis, Inuit and non-aboriginal	45	205	190	—	10	1,275

¹ All 1986 figures exclude the population estimated at about 45,000 on 136 incompletely enumerated Indian reserves and settlements.

² Aboriginal origins are derived from the ethnic origin question which asks whether respondents are North American Indian, Métis or Inuit.

³ Total population refers to the total population of Canada, the provinces and the territories excluding the institutional population.

⁴ Total aboriginal origins include persons who reported a single aboriginal origin (e.g., Inuit) and multiple origins, that is: (a) at least one aboriginal origin with any other non-aboriginal origin (e.g., Métis and French); (b) two or more aboriginal origins only.

⁵ Non-aboriginal refers to all origins (e.g., British, French) excluding North American Indian, Métis or Inuit.

2.19 Population by selected ethnic origins, 1986 Census (based on 20% sample data)

Selected ethnic origins	Province or territory						
	Nfld.	PEI	NS	NB	Que.	Ont.	Man.
Single origins	470,280	74,105	535,905	504,350	6,010,010	5,952,105	681,580
British ¹	449,760	59,275	417,690	251,315	319,550	2,912,830	224,375
French ²	11,315	11,130	52,900	232,570	5,015,565	531,580	55,720
Austrian	25	5	85	50	1,645	10,475	1,665
Belgian	—	65	320	120	6,485	12,180	4,255
Dutch (Netherlands)	395	1,280	9,320	2,900	6,365	171,150	27,875
German	1,155	535	21,205	3,760	26,780	285,155	96,160
Swiss	30	5	160	65	3,425	7,600	595
Finnish	10	10	95	90	810	26,530	720
Scandinavian ³	265	135	1,230	1,215	2,540	26,755	14,835
Estonian	—	—	105	40	655	10,045	55
Latvian	35	—	60	5	905	9,550	400
Lithuanian	5	—	125	20	2,195	10,265	340
Czech and Slovak ⁴	40	15	315	90	4,085	28,910	2,770
Hungarian (Magyar)	40	50	460	230	8,545	51,255	3,230
Polish	200	100	1,840	375	18,835	117,575	22,015
Romanian	—	—	50	20	3,315	7,385	640
Russian	10	—	125	30	1,815	5,780	1,755
Ukrainian	105	65	1,440	490	12,225	109,705	79,940
Croatian	5	—	20	5	920	26,760	665
Serbian	—	—	5	5	240	8,405	85
Slovenian	5	5	25	20	245	4,720	120
Yugoslav (not incl. elsewhere)	15	5	175	95	3,735	32,215	1,195
Macedonian	5	—	—	—	30	11,175	—
Greek	35	5	1,145	230	47,450	80,320	2,025
Italian	235	80	2,260	865	163,880	461,375	8,230
Maltese	40	—	55	10	150	14,330	100
Portuguese	270	75	540	255	29,700	139,220	7,335
Spanish	75	5	275	135	16,605	28,000	1,180
Jewish	150	40	1,760	605	81,190	127,030	13,870
Armenian	—	—	30	15	10,810	10,750	180
Iranian	105	—	165	25	3,205	5,825	150
Turk	—	—	170	20	735	3,270	15
Arab (not incl. elsewhere)	40	85	140	105	9,190	12,700	270
Egyptian	15	—	125	35	6,160	4,200	115
Lebanese	80	230	2,135	660	8,270	11,820	170
South Asian ⁵	680	205	1,950	735	17,780	135,135	7,415
Chinese	610	130	1,345	765	23,205	156,170	8,730
Japanese	25	—	65	85	1,285	16,150	1,055

2.19 Population by selected ethnic origins, 1986 Census (based on 20% sample data) (continued)

Selected ethnic origins	Province or territory						
	Nfld.	PEI	NS	NB	Que.	Ont.	Man.
Single origins (concluded)							
Korean	5	—	25	70	1,235	17,200	565
Filipino	285	—	200	230	5,110	44,195	15,815
Cambodian	—	—	5	—	5,165	3,160	315
Laotian	20	—	25	—	2,795	3,780	920
Vietnamese	40	10	430	290	15,860	17,155	2,055
Pacific Islands origins ⁶	—	—	—	—	90	425	20
Latin, Central and South							
American origins ⁷	15	10	115	75	12,085	11,895	1,185
Caribbean origins ⁸	25	—	130	70	12,980	30,060	1,260
Black	55	50	7,890	935	36,785	108,710	3,665
African Black	—	25	25	15	640	1,960	235
Aboriginal peoples ⁹	3,825	410	5,960	3,885	49,320	55,560	55,410
Other single origins	205	65	1,190	740	7,420	33,715	9,940
Multiple origins ¹⁰	93,730	50,985	328,245	197,505	444,480	3,049,060	367,740
British only ¹¹	52,015	27,135	124,500	77,995	60,715	1,032,120	86,560
British and French	24,290	15,180	80,605	69,855	174,250	512,570	35,495
British and other	12,635	5,985	81,445	30,555	55,235	942,560	131,620
French only ¹²	5	10	515	1,280	3,490	290	40
French and other	815	420	7,025	3,285	77,195	103,345	23,910
British, French and other	3,415	1,990	24,795	12,580	39,590	244,370	30,610
Other multiple origins	550	270	9,360	1,955	33,995	213,815	59,500
Total population	564,000	125,090	864,150	701,860	6,454,490	9,001,170	1,049,320
	Sask.	Alta.	BC	YT	NWT	Canada	
Single origins	604,750	1,389,930	1,759,810	12,855	39,980	18,035,665	
British ¹	222,115	592,345	871,070	5,370	7,015	6,332,725	
French ²	33,535	77,585	68,965	775	1,510	6,093,160	
Austrian	1,615	3,170	6,140	25	15	24,900	
Belgian	1,440	1,755	1,750	15	15	28,395	
Dutch (Netherlands)	13,025	55,920	62,945	350	240	351,765	
German	128,850	182,870	148,280	880	1,085	896,720	
Swiss	600	2,475	4,125	30	25	19,130	
Finnish	1,075	2,625	8,545	25	30	40,565	
Scandinavian ³	24,895	46,525	52,560	445	305	171,715	
Estonian	50	580	1,660	5	5	13,200	
Latvian	55	545	1,030	15	10	12,615	
Lithuanian	160	840	760	10	5	14,725	
Czech and Slovak ⁴	2,145	8,235	8,795	60	70	55,535	
Hungarian (Magyar)	8,115	12,780	13,000	95	40	97,850	
Polish	13,325	28,500	19,305	75	100	222,260	
Romanian	2,695	2,790	1,840	5	5	18,745	
Russian	4,130	4,185	14,170	55	30	32,080	
Ukrainian	60,550	106,760	48,200	340	400	420,210	
Croatian	245	1,990	4,510	—	—	35,115	
Serbian	125	225	390	15	20	9,510	
Slovenian	30	410	310	10	—	5,890	
Yugoslav (not incl. elsewhere)	700	4,525	8,420	60	60	51,205	
Macedonian	—	105	45	—	—	11,355	
Greek	1,185	4,030	7,295	30	40	143,780	
Italian	1,950	23,635	46,755	75	255	709,590	
Maltese	10	175	475	—	—	15,345	
Portuguese	330	6,280	15,535	10	30	199,595	
Spanish	625	5,280	4,910	20	15	57,125	
Jewish	990	7,945	12,230	35	10	245,855	
Armenian	10	110	725	—	—	22,525	
Iranian	185	800	2,820	15	—	13,325	
Turk	70	555	215	—	10	5,065	
Arab (not incl. elsewhere)	365	3,145	1,210	—	10	27,270	
Egyptian	90	645	205	—	—	11,580	
Lebanese	240	5,010	720	—	—	29,345	
South Asian ⁵	3,450	30,090	69,250	45	65	266,800	
Chinese	7,210	49,210	112,605	105	240	360,320	
Japanese	330	5,295	15,905	10	35	40,245	
Korean	120	3,385	5,065	5	20	27,685	
Filipino	1,190	10,260	15,810	20	155	93,285	
Cambodian	135	1,020	555	—	5	10,365	
Laotian	520	655	860	—	—	9,580	
Vietnamese	1,630	9,630	5,740	35	135	53,015	
Pacific Islands origins ⁶	—	780	5,305	5	—	6,625	
Latin, Central and South							
American origins ⁷	780	3,790	2,245	15	20	32,235	
Caribbean origins ⁸	290	2,455	1,205	—	5	48,475	
Black	905	7,235	3,995	10	105	170,340	
African Black	325	740	660	—	—	4,630	
Aboriginal peoples ⁹	55,645	51,670	61,130	3,280	27,175	373,265	
Other single origins	6,685	18,370	19,560	470	670	99,025	

2.19 Population by selected ethnic origins, 1986 Census (based on 20% sample data) (concluded)

	Sask.	Alta.	BC	YT	NWT	Canada
Multiple origins ¹⁰	391,950	950,335	1,089,780	10,505	12,040	6,986,345
British only ¹¹	75,440	213,130	319,240	2,410	2,570	2,073,830
British and French	27,760	90,315	106,370	1,175	1,475	1,139,345
British and other	167,320	393,770	432,590	4,495	4,325	2,262,525
French only ¹²	45	105	130	—	—	5,930
French and other	25,685	45,710	37,135	420	705	325,655
British, French and other	31,395	82,935	89,000	1,055	1,340	563,065
Other multiple origins	64,305	124,365	105,310	950	1,620	616,000
Total population	996,695	2,340,265	2,849,585	23,360	52,020	25,022,005

Note: In this table, the figures for 1986 exclude the population on incompletely enumerated Indian reserves and settlements. For Canada there were 136 such reserves and settlements and the total population was estimated to be about 45,000 in 1986.

¹ Includes the single origins of English, Irish, Scottish, Welsh, British, n.i.e. and Other British.

² Includes the single origins of French, Acadian, French Canadian and Québécois.

³ Includes the single origins of Danish, Icelandic, Norwegian, Swedish and Scandinavian, n.i.e.

⁴ Includes the single origins of Czech, Czechoslovakian and Slovak.

⁵ Includes the single origins of Bengali, Gujarati, Punjabi, Singhalese, Tamil, Bangladeshi, n.i.e., East Indian, n.i.e., Pakistani, n.i.e. and Sri Lankan, n.i.e.

⁶ Includes the single origins of Fijian, Polynesian and Other Pacific Islanders.

⁷ Includes the single origins of Argentinian, Brazilian, Chilean, Ecuadorian, Mexican, Peruvian and Other Latin/Central/South American origins.

⁸ Includes the single origins of Cuban, Haitian, Jamaican, Puerto Rican, Other Caribbean, n.i.e. and Other West Indian.

⁹ Includes the single origins of Inuit, Métis and North American Indian.

¹⁰ Includes persons who report more than one origin.

¹¹ The British only multiple category includes persons who report more than one of the following origins: English, Irish, Scottish, Welsh, British, n.i.e. and Other British.

¹² The French only multiple category includes persons who report more than one of the following origins: French, Acadian, Franco-Manitoban, Franco-Ontarian, French Canadian and Québécois.

2.20 Private households and average number of persons per household, by province, 1976, 1981 and 1986¹

Province or territory	Private households				Average persons per household		
	1976	1981	1986	% increase 1981-86	1976	1981	1986
Newfoundland	131,665	148,420	159,080	7.2	4.1	3.8	3.5
Prince Edward Island	32,930	37,660	40,695	8.1	3.5	3.2	3.0
Nova Scotia	243,095	273,190	295,780	8.3	3.3	3.0	2.9
New Brunswick	190,435	214,920	231,680	7.8	3.5	3.2	3.0
Quebec	1,894,110	2,172,855	2,357,105	8.5	3.2	2.9	2.7
Ontario	2,634,620	2,969,785	3,221,730	8.5	3.1	2.8	2.8
Manitoba	328,005	357,985	382,345	6.8	3.0	2.8	2.7
Saskatchewan	291,155	332,710	358,265	7.7	3.1	2.8	2.7
Alberta	575,280	758,240	836,130	10.3	3.1	2.9	2.8
British Columbia	828,285	996,640	1,087,120	9.1	2.9	2.7	2.6
Yukon	6,495	7,600	7,975	4.9	3.2	2.9	2.8
Northwest Territories	10,020	11,520	13,775	19.6	4.1	3.8	3.7
Canada	7,166,095	8,281,530	8,991,670	8.6	3.1	2.9	2.8

¹ The figures for 1986 exclude the population on 136 incompletely enumerated Indian reserves and settlements. The total population on these reserves was estimated to be about 45,000 in 1986.

2.21 Private households by type, 1976, 1981 and 1986

Type of household	Number			Percentage of total households		
	1976	1981	1986	1976	1981	1986
Family households	5,633,945	6,231,490	6,635,000	78.6	75.2	73.8
One-family households	5,542,295	6,140,330	6,537,880	77.3	74.1	72.7
Primary-family households	5,513,765	6,043,735	6,438,995	76.9	73.0	71.6
Without additional persons	5,025,815	5,556,385	5,938,725	70.1	67.1	66.0
With additional persons	487,950	487,350	500,275	6.8	5.9	5.6
Secondary-family households	28,525	96,590	98,885	0.4	1.2	1.1
Multiple-family households	91,650	91,155	97,115	1.3	1.1	1.1
Non-family households	1,532,150	2,050,045	2,356,675	21.4	24.8	26.2
One person only	1,205,340	1,681,130	1,934,710	16.8	20.3	21.5
Two or more persons	326,810	368,910	421,965	4.6	4.5	4.7
Total households	7,166,095	8,281,530	8,991,675	100.0	100.0	100.0

2.22 Household maintainers by age groups, 1986

Province or territory	15-24 years	25-39 years	40-49 years	50-64 years	65 years and over	Total
Newfoundland	6,625	59,140	30,190	35,410	27,710	159,080
Prince Edward Island	2,045	13,505	6,910	8,870	9,365	40,690
Nova Scotia	16,100	100,950	50,700	63,980	64,050	295,780
New Brunswick	12,080	81,880	40,430	50,110	47,175	231,680
Quebec	136,025	858,975	449,225	539,570	373,310	2,357,100
Ontario	168,140	1,109,750	587,000	757,265	599,570	3,221,725
Manitoba	26,500	128,610	60,315	81,890	85,025	382,345
Saskatchewan	28,535	120,215	51,275	75,795	82,445	358,270
Alberta	72,870	346,420	140,845	159,340	116,655	836,130
British Columbia	65,235	378,670	191,700	237,550	213,970	1,087,115
Yukon	570	3,805	1,645	1,395	560	7,975
Northwest Territories	1,220	6,965	2,585	2,155	850	13,770
Canada	535,950	3,208,885	1,612,815	2,013,330	1,620,690	8,991,670

2.23 Families and persons per family, 1981 and 1987¹

Province or territory	Families '000		Persons in families '000		Average number of persons per family	
	1981	1987 ¹	1981	1987 ¹	1981	1987
Newfoundland	135.1	143.8	509.5	508.6	3.8	3.5
Prince Edward Island	30.2	32.6	105.7	108.9	3.5	3.3
Nova Scotia	216.2	233.0	721.0	740.0	3.3	3.2
New Brunswick	176.6	189.0	605.2	612.6	3.4	3.2
Quebec	1,671.5	1,774.6	5,491.2	5,491.5	3.3	3.1
Ontario	2,279.0	2,496.3	7,348.5	7,784.3	3.2	3.1
Manitoba	262.2	280.1	851.3	881.1	3.2	3.1
Saskatchewan	245.7	262.1	809.9	841.9	3.3	3.2
Alberta	565.6	619.0	1,842.4	1,963.5	3.3	3.2
British Columbia	727.7	783.2	2,261.0	2,362.8	3.1	3.0
Yukon	5.7	..	18.5	..	3.3	..
Northwest Territories	9.5	..	38.2	..	4.0	..
Canada	6,325.0	6,813.7	20,602.6	21,295.2	3.3	3.1

¹ Preliminary postcensal estimates.**2.24 Families by family structure, 1976, 1981 and 1987^{1,2}**

Family structure	Number '000			Percentage		
	1976	1981	1987	1976	1981	1987
Husband-wife families	5,168.6	5,611.0	5,931.7	90.2	88.7	87.1
Lone-parent families	559.3	714.0	882.0	9.8	11.3	12.9
Male parent	95.0	124.2	157.1	1.7	2.0	2.3
Female parent	464.3	589.8	724.9	8.1	9.3	10.6
Total families	5,727.9	6,325.0	6,813.7	100.0	100.0	100.0

¹ Preliminary postcensal estimates.² Excludes Yukon and Northwest Territories.

2.25 Husband-wife and lone-parent families by age of husband, wife and lone-parent, 1976, 1981 and 1987^{1,2}

Age	1976		1981		1987	
	No. '000	%	No. '000	%	No. '000	%
Husband-wife families	5,168.6		5,611.0		5,931.7	
Husbands	5,168.6	100.0	5,611.0	100.0	5,931.7	100.0
15 - 24 years	338.6	6.6	320.5	5.7	200.3	3.4
25 - 44 years	2,445.3	47.3	2,707.4	48.3	2,936.0	49.5
45 - 64 years	1,785.8	34.6	1,877.0	33.5	1,968.6	33.2
65 years and over	598.8	11.6	706.0	12.6	826.8	13.9
Wives	5,168.6	100.0	5,611.0	100.0	5,931.7	100.0
15 - 24 years	623.5	12.1	594.3	10.6	411.1	6.9
25 - 44 years	2,482.8	48.0	2,777.7	49.5	3,091.3	52.1
45 - 64 years	1,662.3	32.2	1,750.6	31.2	1,826.0	30.8
65 years and over	400.0	7.7	488.3	8.7	603.2	10.2
Lone-parent families	559.3		714.0		882.0	
Male	95.0	100.0	124.2	100.0	157.1	100.0
15 - 24 years	3.3	3.5	2.5	2.0	3.1	2.0
25 - 44 years	33.8	35.6	47.3	38.1	66.2	42.1
45 - 64 years	40.8	42.9	56.2	45.3	67.8	43.2
65 years and over	17.1	18.0	18.1	14.6	20.1	12.8
Female	464.3	100.0	589.8	100.0	724.9	100.0
15 - 24 years	33.1	7.1	45.5	7.7	50.3	6.9
25 - 44 years	198.8	42.8	279.6	47.4	381.4	52.6
45 - 64 years	164.9	35.5	193.3	32.8	212.9	29.4
65 years and over	67.6	14.6	71.4	12.1	80.3	11.1

¹ Preliminary postcensal estimates.² Excludes Yukon and Northwest Territories.

2.26 Husband-wife and lone-parent families by number of persons, by province, 1987¹

Family structure	Total families '000	Number of persons '000					Total persons in families '000	Average number of persons per family
		2	3	4	5	6+		
Newfoundland — all families	143.8	39.4	33.0	40.9	20.5	9.9	508.6	3.5
Husband-wife	127.4	31.1	28.2	38.8	19.8	9.5	462.7	3.6
Lone-parent	16.4	8.3	4.8	2.2	0.7	0.4	45.8	2.8
Prince Edward Island — all families	32.6	11.5	7.1	7.9	4.1	1.9	108.8	3.3
Husband-wife	28.5	9.1	6.0	7.5	4.0	1.8	97.9	3.4
Lone-parent	4.1	2.4	1.2	0.4	0.1	0.1	10.9	2.6
Nova Scotia — all families	233.0	89.8	54.7	57.6	22.6	8.3	740.0	3.2
Husband-wife	201.9	72.0	45.5	54.6	21.8	7.9	658.7	3.3
Lone-parent	31.1	17.8	9.1	3.0	0.8	0.3	81.3	2.6
New Brunswick — all families	189.0	67.8	44.6	49.4	20.3	6.9	612.6	3.2
Husband-wife	163.4	53.5	36.9	46.7	19.6	6.6	545.1	3.3
Lone-parent	25.6	14.2	7.7	2.6	0.7	0.3	67.5	2.6
Quebec — all families	1,774.6	708.0	438.2	435.8	152.3	40.2	5,491.5	3.1
Husband-wife	1,511.4	549.7	361.2	414.4	147.4	38.8	4,824.3	3.2
Lone-parent	263.1	158.3	77.0	21.4	4.9	1.4	667.2	2.5
Ontario — all families	2,496.3	1,011.2	568.2	618.8	230.1	68.0	7,784.3	3.1
Husband-wife	2,195.0	837.9	475.6	591.4	223.9	66.2	7,007.3	3.2
Lone-parent	301.3	173.2	92.6	27.4	6.2	1.9	777.0	2.6
Manitoba — all families	280.1	116.5	60.5	65.1	27.3	10.7	881.1	3.1
Husband-wife	245.2	96.7	50.3	61.7	26.3	10.2	789.1	3.2
Lone-parent	34.9	19.8	10.2	3.4	1.0	0.5	92.0	2.6
Saskatchewan — all families	262.1	106.4	53.2	60.4	29.9	12.1	841.9	3.2
Husband-wife	232.1	89.9	44.7	57.2	28.8	11.5	760.6	3.3
Lone-parent	30.0	16.5	8.6	3.3	1.1	0.6	81.3	2.7
Alberta — all families	619.0	243.7	139.1	154.2	60.5	21.5	1,963.5	3.2
Husband-wife	543.6	201.9	115.2	146.9	58.7	20.8	1,765.5	3.2
Lone-parent	75.4	41.7	23.8	7.2	1.8	0.7	198.0	2.6
British Columbia — all families	783.2	356.5	165.9	178.4	63.3	19.1	2,362.8	3.0
Husband-wife	683.1	298.6	134.6	169.9	61.4	18.5	2,105.9	3.1
Lone-parent	100.1	57.8	31.3	8.4	1.9	0.6	256.9	2.6
Canada ² — all families	6,813.7	2,750.7	1,564.7	1,668.6	631.0	198.7	21,295.2	3.1
Husband-wife	5,931.7	2,240.6	1,298.3	1,589.2	611.7	191.9	19,017.2	3.2
Lone-parent	882.0	510.1	266.4	79.4	19.3	6.8	2,278.0	2.6

¹ Preliminary postcensal estimates.² Excludes Yukon and Northwest Territories.

2.27 Children living at home in private households, by age groups, by province, 1986

Province or territory	Under 6 years	6-14 years	15-17 years	18-24 years	25 years and over	Total children living at home
Newfoundland	48,475	91,265	33,760	49,165	16,675	239,335
Prince Edward Island	10,940	17,390	6,205	9,680	3,620	47,840
Nova Scotia	68,950	111,885	40,340	63,640	22,195	307,010
New Brunswick	57,895	98,550	34,170	52,785	18,790	262,185
Quebec	515,000	797,760	264,160	466,120	179,055	2,222,085
Ontario	736,090	1,092,625	391,450	646,910	200,200	3,067,275
Manitoba	90,035	134,680	46,060	62,790	20,920	354,485
Saskatchewan	97,875	137,825	43,880	53,055	15,745	348,380
Alberta	235,785	308,900	100,060	125,130	33,095	802,970
British Columbia	238,250	338,070	119,490	153,115	47,145	896,070
Yukon	2,490	3,020	1,005	1,035	290	7,835
Northwest Territories	6,820	8,995	2,695	3,280	1,080	22,875
Canada	2,108,605	3,140,955	1,083,260	1,686,710	558,805	8,578,340

2.28 Summary of principal vital statistics

Province or territory and year	Live births		Deaths		Natural increase ¹		Marriages		Divorces	
	No.	Rate ²	No.	Rate ²	No.	Rate ²	No.	Rate ²	No.	Rate ³
Newfoundland										
1982	9,173	16.1	3,385	5.9	5,788	10.2	3,764	6.5	625	109.8
1983	8,929	15.4	3,498	6.1	5,431	9.4	3,778	6.5	711	123.0
1984	8,560	14.8	3,520	6.1	5,040	8.7	3,567	6.2	590	101.8
1985	8,500 ⁴	14.6	3,557	6.1	4,943	8.5	3,220	5.5	561	96.6
1986	8,100	14.2	3,540	6.2	4,560	8.0	3,421	6.0	610	107.3
Prince Edward Island										
1982	1,924	15.7	980	8.0	944	7.7	855	7.0	206	167.8
1983	1,907	15.4	1,050	8.5	857	6.9	937	7.6	215	173.4
1984	1,954	15.6	1,109	8.9	845	6.7	1,057	8.4	195	155.6
1985	2,008	15.8	1,110	8.7	898	7.1	956	7.5	213	167.6
1986	1,928	15.2	1,121	8.9	807	6.4	970	7.7	191	150.9
Nova Scotia										
1982	12,325	14.5	6,941	8.1	5,384	6.3	6,486	7.6	2,281	267.6
1983	12,401	14.4	7,047	8.2	5,354	6.2	6,505	7.6	2,340	272.3
1984	12,378	14.2	6,913	7.9	5,465	6.3	6,798	7.8	2,264	260.3
1985	12,450	14.1	7,315	8.3	5,135	5.8	6,807	7.7	2,337	265.4
1986	12,358	14.2	7,255	8.3	5,103	5.8	6,445	7.4	2,550	292.0
New Brunswick										
1982	10,489	15.0	5,197	7.4	5,292	7.6	4,923	7.0	1,663	237.9
1983	10,518	14.9	5,206	7.4	5,312	7.5	5,260	7.4	1,942	274.8
1984	10,360	14.5	5,272	7.4	5,088	7.1	5,294	7.4	1,427	200.1
1985	10,121	14.1	5,230	7.3	4,891	6.8	5,312	7.4	1,360	189.1
1986	9,788	13.8	5,458	7.7	4,330	6.1	4,962	7.0	1,700	239.6
Quebec										
1982	90,800	14.0	43,497	6.7	47,303	7.3	38,354	5.9	18,579	286.6
1983	88,154	13.5	44,275	6.8	43,879	6.7	36,144	5.5	17,365	266.3
1984	87,839	13.4	44,449	6.8	43,390	6.6	37,433	5.7	16,845	257.2
1985	86,340	13.1	45,707	6.9	40,633	6.2	37,026	5.6	15,814	240.3
1986	84,634	13.0	46,892	7.2	37,742	5.8	33,083	5.1	18,399	281.6
Ontario										
1982	124,856	14.3	63,696	7.3	61,160	7.0	71,595	8.2	23,644	271.3
1983	126,826	14.4	64,507	7.3	62,319	7.1	70,893	8.0	23,073	261.7
1984	131,296	14.7	64,703	7.2	66,593	7.4	71,922	8.0	21,636	242.1
1985	132,208	14.6	66,747	7.4	65,461	7.2	72,891	8.0	20,854	230.0
1986	133,882	14.7	67,865	7.5	66,017	7.3	70,839	7.8	28,653	314.8
Manitoba										
1982	16,123	15.6	8,490	8.2	7,633	7.4	8,264	8.0	2,392	231.1
1983	16,602	15.8	8,521	8.1	8,081	7.7	8,261	7.9	2,642	252.3
1984	16,651	15.8	8,290	7.8	8,361	7.9	8,393	7.9	2,611	247.1
1985	17,097	16.0	8,756	8.2	8,341	7.8	8,296	7.8	2,314	216.3
1986	17,009	16.0	8,911	8.4	8,098	7.6	7,816	7.4	2,917	274.4
Saskatchewan										
1982	17,722	18.1	8,202	8.4	9,520	9.7	7,491	7.6	1,815	185.3
1983	17,847	18.0	7,611	7.7	10,236	10.3	7,504	7.6	2,000	201.5
1984	18,014	17.9	7,710	7.9	10,304	10.2	7,213	7.2	1,988	197.6
1985	18,162	17.8	8,031	7.9	10,131	9.9	7,132	7.0	1,927	189.0
1986	17,513	17.4	8,061	8.0	9,452	9.4	6,820	6.8	2,395	237.2

2.28 Summary of principal vital statistics (concluded)

Province or territory and year	Live births		Deaths		Natural increase ¹		Marriages		Divorces	
	No.	Rate ²	No.	Rate ²	No.	Rate ²	No.	Rate ²	No.	Rate ³
Alberta										
1982	45,036	19.4	12,968	5.6	32,068	13.8	22,312	9.6	8,882	383.3
1983	45,555	19.4	12,588	5.4	32,967	14.0	21,172	9.0	8,758	372.7
1984	44,105	18.8	12,730	5.4	31,375	13.4	20,052	8.5	8,454	359.9
1985	43,813	18.6	13,231	5.6	30,582	13.0	19,750	8.4	8,102	344.9
1986	43,744	18.5	13,560	5.7	30,184	12.8	18,896	8.0	9,386	396.7
British Columbia										
1982	42,747	15.3	20,707	7.4	22,040	7.9	23,831	8.5	10,165	364.3
1983	42,919	15.2	19,827	7.0	23,092	8.2	23,692	8.4	9,348	331.0
1984	43,911	15.3	20,686	7.2	23,225	8.1	23,397	8.1	8,988	313.1
1985	43,127	14.9	21,302	7.4	21,825	7.5	22,292	7.7	8,330	288.0
1986	41,967	14.6	21,213	7.4	20,754	7.2	21,826	7.6	11,176	387.6
Yukon										
1982	525	22.1	118	5.0	407	17.1	225	9.5	117	492.9
1983	540	24.2	113	5.1	427	19.1	243	10.9	88	394.6
1984	519	23.8	108	5.0	411	18.8	212	9.7	100	458.7
1985	464	20.4	123	5.4	341	15.0	185	8.1	96	421.0
1986	483	20.6	113	4.8	370	15.7	183	7.8	89	378.7
Northwest Territories										
1982	1,362	28.9	232	4.9	1,130	24.0	260	5.5	67	142.0
1983	1,491	30.8	241	5.0	1,250	25.8	286	5.9	85	175.6
1984	1,444	29.2	237	4.8	1,207	24.4	259	5.2	74	149.8
1985	1,437	28.2	214	4.2	1,223	24.0	229	4.5	72	141.4
1986	1,507	28.9	235	4.5	1,272	24.4	257	4.9	94	180.1
Canada										
1982	373,082	15.1	174,413	7.1	198,669	8.1	188,360	7.6	70,436	285.9
1983	373,689	15.0	174,484	7.0	199,205	8.0	184,675	7.4	68,567	275.5
1984	377,031	15.0	175,727	7.0	201,304	8.0	185,597	7.4	65,172	259.4
1985	375,727 ⁴	14.8	181,323	7.2	194,404	7.7	184,096	7.3	61,980	244.4
1986	372,913	14.7	184,224	7.3	188,689	7.5	175,518	6.9	78,160	308.8

¹ Excess births over deaths.

² Per 1,000 population.

³ Per 100,000 population.

⁴ Adjusted for expected undercount.

2.29 Stillbirths and ratio per 1,000 live births, 1976-86

Year	Number (28 weeks or more gestation)											
	Nfld.	PEI	NS	NB	Que.	Ont.	Man.	Sask.	Alta.	BC	YT	NWT
1976	95	19	94	103	694 ^c	957	149	116	201	252	5	6
1977	77	14	80	70	610	850	119	126	238	237	1	15
1978	93	12	91	78	519	767	109	104	219	227	5	12
1979	48	14	73	79	534	726	99	110	201	209	1	7
1980	45	11	70	75	444	698	89	95	216	196	1	12
1981	49	9	76	59	479	641	92	103	215	242	1	6
1982	47	13	69	60	400	676	63	103	257	216	4	15
1983	49	18	73	56	384	669	82	98	200	191	2	6
1984	36	11	61	59	361	570	87	87	205	193	1	7
1985	42	14	55	43	333	598	78	70	180	206	2	8
1986	40	8	64	57	299	594	62	70	178	185	2	15

Ratio

	Nfld.	PEI	NS	NB	Que.	Ont.	Man.	Sask.	Alta.	BC	YT	NWT	Canada
1976	8.5	9.8	7.3	8.7	7.2 ^c	7.8	8.9	7.3	6.1	7.0	11.2	5.1	7.5 ^c
1977	6.9	7.1	6.5	6.1	6.4	6.9	7.1	7.6	6.9	6.5	2.3	12.6	6.7
1978	8.9	6.0	7.3	7.2	5.5	6.3	6.6	6.3	6.2	6.1	11.2	10.0	6.2
1979	4.7	7.2	5.9	7.3	5.4	6.0	6.1	6.5	5.4	5.4	2.0	5.5	5.7
1980	4.4	5.6	5.7	7.1	4.6	5.7	5.6	5.6	5.4	4.9	2.1	9.2	5.3
1981	4.8	4.7	6.3	5.6	5.0	5.2	5.7	5.9	5.0	5.8	1.9	4.6	5.3
1982	5.1	6.8	5.6	5.7	4.4	5.4	3.9	5.8	5.7	5.1	7.6	11.0	5.2
1983	5.5	9.4	5.9	5.3	4.4	5.3	4.9	5.5	4.4	4.4	3.7	4.0	4.9
1984	4.2	5.6	4.9	5.7	4.1	4.3	5.2	4.8	4.6	4.4	1.9	4.8	4.4
1985	4.9	6.9	4.4	4.2	3.8	4.5	4.5	3.8	4.1	4.8	4.3	5.5	4.3
1986	4.9	4.1	5.2	5.8	3.5	4.4	3.6	4.0	4.1	4.4	4.1	10.0	4.2

2.30 Fertility rate¹ and reproduction rate²

Year and province or territory	Age group							Total fertility rate	Gross reproduction rate
	15-19	20-24	25-29	30-34	35-39	40-44	45-49		
1966	48.2	169.1	163.5	103.3	57.5	19.1	1.7	2,812	1.369
1971	40.1	134.4	142.0	77.3	33.6	9.4	0.6	2,187	1.060
1976 ²	33.4	110.3	129.9	65.6	21.1	4.3	0.3	1,825	0.887
1981	26.4	96.7	126.9	68.0	19.4	3.2	0.2	1,704	0.829
1982	26.5	95.4	124.7	68.6	20.2	3.1	0.2	1,694	0.825
1983	24.9	92.4	124.6	70.5	20.5	3.0	0.2	1,680	0.816
1984	24.4	88.8	126.0	73.3	21.5	3.0	0.1	1,686	0.819
1985	23.7	85.3	125.3	74.6	21.8	3.0	0.1	1,669	0.811
1986	23.5	84.8	124.6	75.6	22.6	3.2	0.1	1,672	0.816
1983									
Prince Edward Island	32.9	104.7	139.2	70.6	25.7	5.2	—	1,892	0.938
Nova Scotia	33.4	98.5	116.4	62.2	18.6	2.8	0.1	1,660	0.811
New Brunswick	32.3	111.1	121.3	55.8	14.0	3.1	0.2	1,689	0.828
Quebec	14.4	80.3	118.6	61.3	16.5	2.5	0.2	1,469	0.708
Ontario	22.1	84.4	124.8	74.6	22.6	2.9	0.1	1,658	0.806
Manitoba	40.2	105.8	128.8	73.3	21.9	4.0	0.1	1,870	0.907
Saskatchewan	50.4	134.2	146.7	72.0	19.9	3.2	0.4	2,134	1.052
Alberta	37.0	113.7	134.9	79.0	23.1	3.7	0.2	1,958	0.950
British Columbia	26.1	97.0	121.4	75.7	22.6	3.5	0.2	1,732	0.843
Yukon	46.7	160.0	148.5	81.7	33.3	1.7	—	2,360	1.109
Northwest Territories	107.7	195.6	164.4	98.1	55.0	18.2	1.2	3,201	1.572
1984									
Prince Edward Island	37.6	106.6	128.4	76.6	23.0	4.7	0.7	1,888	0.919
Nova Scotia	31.3	92.4	117.7	64.7	18.1	2.3	0.3	1,634	0.785
New Brunswick	31.3	105.6	122.3	53.7	15.4	1.9	—	1,651	0.810
Quebec	14.3	76.6	118.9	62.5	17.1	2.5	0.1	1,460	0.707
Ontario	21.8	82.7	127.6	79.1	23.9	3.3	0.1	1,692	0.824
Manitoba	39.3	97.6	133.0	75.8	22.8	3.1	0.2	1,859	0.901
Saskatchewan	49.0	127.3	145.6	75.8	20.1	3.4	0.4	2,108	1.028
Alberta	35.2	107.8	132.0	81.5	23.4	3.2	0.2	1,916	0.933
British Columbia	24.7	94.8	125.4	78.4	24.7	3.2	0.1	1,757	0.850
Yukon	51.1	116.4	150.0	97.5	30.0	4.3	—	2,246	1.042
Northwest Territories	110.0	173.2	155.0	104.5	39.4	15.4	1.2	2,994	1.446
1985									
Prince Edward Island	33.7	99.7	140.8	77.1	24.0	5.2	0.3	1,904	0.902
Nova Scotia	29.2	87.3	118.9	65.8	19.1	3.3	0.1	1,618	0.783
New Brunswick	31.7	99.3	117.1	57.1	13.2	1.9	0.2	1,602	0.777
Quebec	14.5	73.5	116.7	62.0	17.1	2.2	0.1	1,430	0.692
Ontario	21.0	78.9	126.4	81.3	24.3	3.4	0.1	1,677	0.818
Manitoba	37.9	97.2	132.5	80.8	23.3	4.2	0.2	1,880	0.925
Saskatchewan	46.8	122.9	147.8	77.7	20.7	2.7	0.2	2,094	1.007
Alberta	34.4	106.0	135.4	82.8	23.8	3.8	0.2	1,932	0.941
British Columbia	22.8	90.3	124.9	79.5	25.4	3.1	0.2	1,731	0.834
Yukon	41.1	105.5	136.9	77.7	29.0	4.3	—	1,972	0.927
Northwest Territories	109.2	171.9	153.8	95.4	33.5	8.2	—	2,860	1.396
1986									
Prince Edward Island	32.2	93.6	130.3	76.8	29.4	4.6	0.3	1,836	0.907
Nova Scotia	28.0	87.4	118.0	70.2	18.1	2.8	0.1	1,623	0.795
New Brunswick	29.1	98.0	119.0	53.9	14.8	2.1	0.2	1,586	0.772
Quebec	15.1	73.6	116.4	61.6	17.4	2.5	0.1	1,434	0.701
Ontario	20.5	78.5	126.0	82.7	25.5	3.7	0.1	1,685	0.821
Manitoba	37.4	97.5	133.7	81.6	24.6	3.5	0.2	1,892	0.910
Saskatchewan	46.5	124.4	144.5	76.3	22.2	3.0	0.2	2,086	1.014
Alberta	35.6	102.4	134.6	86.0	24.6	3.0	0.2	1,932	0.943
British Columbia	22.2	89.8	122.5	80.1	25.4	3.6	0.1	1,718	0.838
Yukon	33.1	112.4	140.4	80.4	38.0	2.9	—	2,036	1.075
Northwest Territories	115.3	178.8	152.9	103.4	37.6	12.3	1.0	3,006	1.485

¹ Excludes Newfoundland, 1966-86.² Minor adjustments made in Quebec births for the year 1976.

2.31 Marriages and rate per 1,000 population

Province or territory	1983		1984		1985		1986	
	Total marriages	Rate per 1,000 population	Total marriages	Rate per 1,000 population	Total marriages	Rate per 1,000 population	Total marriages	Rate per 1,000 population
Newfoundland	3,778	6.5	3,567	6.2	3,220	5.5	3,421	6.0
Prince Edward Island	937	7.6	1,057	8.4	956	7.5	970	7.7
Nova Scotia	6,505	7.6	6,798	7.8	6,807	7.7	6,445	7.4
New Brunswick	5,260	7.4	5,294	7.4	5,312	7.4	4,962	7.0
Quebec	36,144	5.5	37,433	5.7	37,026	5.6	33,083	5.1
Ontario	70,893	8.0	71,922	8.0	72,891	8.0	70,839	7.8
Manitoba	8,261	7.9	8,393	7.9	8,296	7.8	7,816	7.4
Saskatchewan	7,504	7.6	7,213	7.2	7,132	7.0	6,820	6.8
Alberta	21,172	9.0	20,052	8.5	19,750	8.4	18,896	8.0
British Columbia	23,692	8.4	23,397	8.1	22,292	7.7	21,826	7.6
Yukon	243	10.9	212	9.7	185	8.1	183	7.8
Northwest Territories	286	5.9	259	5.2	229	4.5	257	4.9
Canada	184,675	7.4	185,597	7.4	184,096	7.3	175,518	6.9

2.32 Brides and bridegrooms, by age and marital status

Year and age group	Brides						
	Number				Percentage		
	Single	Widowed	Divorced	Total	Single	Widowed	Divorced
1982							
Total, all ages	152,825	5,518	29,951	188,294	81.1	2.9	15.9
Average age	23.7	53.7	34.8	26.4	...	...	...
1983							
Total, all ages	147,968	5,310	31,397	184,675	80.1	2.9	17.0
Average age	24.0	53.5	35.0	26.0	...	...	...
1984							
Total, all ages	147,907	5,930	31,760	185,597	79.7	3.2	17.1
Average age	24.3	53.8	35.4	27.2	...	...	...
1985							
Under 15 years	4	—	—	4	100.0	—	—
15 - 19 "	15,452	3	24	15,479	99.8	..	0.2
20 - 24 "	77,992	61	1,783	79,836	97.7	..	2.2
25 - 29 "	38,216	244	7,225	45,685	83.7	0.5	15.8
30 - 34 "	10,109	362	8,311	18,782	53.8	1.9	44.2
35 - 39 "	2,854	380	6,148	9,382	30.4	4.0	65.5
40 - 44 "	914	427	3,776	5,117	17.9	8.3	73.8
45 - 49 "	421	483	2,220	3,124	13.5	15.5	71.0
50 - 54 "	219	569	1,296	2,084	10.5	27.3	62.2
55 - 59 "	172	656	667	1,495	11.5	43.9	44.6
60 - 64 "	134	788	373	1,295	10.3	60.8	28.8
65 years and over	104	1,368	183	1,655	6.3	82.7	11.0
Total, stated ages	146,591	5,341	32,006	183,938	79.7	2.9	17.4
Age not stated	127	19	12	158	80.4	12.0	7.6
Total, all ages	146,718	5,360	32,018	184,096	79.7	2.9	17.4
Average age	24.6	54.2	35.9	27.4	...	...	...

2.32 Brides and bridegrooms, by age and marital status (continued)

Year and age group	Brides						
	Number				Percentage		
	Single	Widowed	Divorced	Total	Single	Widowed	Divorced
1986							
Under 15 years	8	—	—	8	100.0	—	—
15 - 19 "	13,338	2	62	13,402	99.5	—	0.5
20 - 24 "	71,996	65	1,950	74,011	97.3	0.1	2.6
25 - 29 "	38,030	228	7,072	45,330	83.9	0.5	15.6
30 - 34 "	10,129	306	8,128	18,563	54.6	1.6	43.8
35 - 39 "	2,968	416	6,123	9,507	31.2	4.4	64.4
40 - 44 "	1,002	409	3,756	5,167	19.4	7.9	72.7
45 - 49 "	411	508	2,229	3,148	13.1	16.1	70.8
50 - 54 "	215	558	1,312	2,085	10.3	26.8	62.9
55 - 59 "	141	600	694	1,435	9.8	41.8	48.4
60 - 64 "	105	644	352	1,101	9.5	58.5	32.0
65 years and over	92	1,341	212	1,645	5.6	81.5	12.9
Total, stated ages	138,435	5,077	31,890	175,402	78.9	2.9	18.2
Age not stated	88	16	12	116	75.9	13.8	10.3
Total, all ages	138,523	5,093	31,902	175,518	78.9	2.9	18.2
Average age	24.8	54.1	35.9	27.7	...	...	...
Bridegrooms							
	Number				Percentage		
	Single	Widowed	Divorced	Total	Single	Widowed	Divorced
1982							
Total, all ages	149,419	5,423	33,334	188,176	79.3	2.9	17.7
Average age	25.9	59.6	38.2	29.0	...	...	...
1983							
Total, all ages	144,960	5,232	34,483	184,675	78.5	2.8	18.7
Average age	26.2	59.6	38.4	29.4	...	...	...
1984							
Total, all ages	144,674	5,647	35,276	185,597	78.0	3.0	19.0
Average age	26.5	59.9	38.9	29.8	...	...	...
1985							
Under 15 years	—	—	—	—	—	—	—
15 - 19 "	3,152	—	9	3,161	99.7	—	0.3
20 - 24 "	59,567	13	468	60,048	99.2	..	0.8
25 - 29 "	54,886	74	4,463	59,423	92.4	0.1	7.5
30 - 34 "	17,611	164	8,351	26,126	67.4	0.6	32.0
35 - 39 "	5,161	199	7,939	13,299	38.8	1.5	59.7
40 - 44 "	1,562	297	5,190	7,049	22.2	4.2	73.6
45 - 49 "	670	334	3,359	4,363	15.4	7.7	76.9
50 - 54 "	416	521	2,247	3,184	13.1	16.4	70.5
55 - 59 "	301	721	1,376	2,398	12.6	30.1	57.3
60 - 64 "	244	854	783	1,881	13.0	45.4	41.6
65 years and over	200	2,087	533	2,820	7.1	74.0	18.9
Total, stated ages	143,770	5,264	34,718	183,752	78.2	2.9	18.9
Age not stated	239	43	62	344	69.5	12.5	18.0
Total, all ages	144,009	5,307	34,780	184,096	78.2	2.9	18.9
Average age	26.7	60.2	39.4	30.0	...	...	...

2.32 Brides and bridegrooms, by age and marital status (concluded)

Year and age group	Bridegrooms						
	Number				Percentage		
	Single	Widowed	Divorced	Total	Single	Widowed	Divorced
1986							
Under 15 years	—	—	—	—	—	—	—
15 – 19 "	2,694	—	11	2,705	99.6	—	0.4
20 – 24 "	53,800	22	563	54,385	98.9	—	1.0
25 – 29 "	53,638	99	4,280	58,017	92.4	0.2	7.4
30 – 34 "	17,747	151	7,431	25,329	70.1	0.6	29.3
35 – 39 "	5,547	241	7,261	13,049	42.5	1.8	55.6
40 – 44 "	1,870	268	5,058	7,196	26.0	3.7	70.3
45 – 49 "	840	335	3,274	4,449	18.9	7.5	73.6
50 – 54 "	486	493	2,153	3,132	15.5	15.7	68.7
55 – 59 "	328	659	1,336	2,323	14.1	28.4	57.5
60 – 64 "	245	796	818	1,859	13.2	42.8	44.0
65 years and over	215	1,982	560	2,757	7.8	71.9	20.3
Total, stated ages	137,410	5,046	32,745	175,201	78.4	2.9	18.7
Age not stated	255	38	24	317	80.4	12.0	7.6
Total, all ages	137,665	5,084	32,769	175,518	78.4	2.9	18.7
Average age	27.0	59.8	37.8	30.3	...	...	...

2.33 Divorces and rates

Province or territory	Number					Rate per 100,000 population				
	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986
Newfoundland	625	711	590	561	610	109.8	123.0	101.8	96.6	107.3
Prince Edward Island	206	215	195	213	191	167.8	173.4	155.6	167.6	150.9
Nova Scotia	2,281	2,340	2,264	2,337	2,550	267.6	272.3	260.3	265.4	292.0
New Brunswick	1,663	1,942	1,427	1,360	1,700	237.9	274.8	200.1	189.1	239.6
Quebec	18,579	17,365	16,845	15,814	18,399	286.6	266.3	257.2	240.3	281.7
Ontario ¹	23,644	23,073	21,636	20,854	28,653	271.3	261.7	242.1	230.0	314.8
Manitoba	2,392	2,642	2,611	2,314	2,917	231.1	252.3	247.1	216.3	274.4
Saskatchewan	1,815	2,000	1,988	1,927	2,395	185.3	201.5	197.6	189.0	237.2
Alberta	8,882	8,758	8,454	8,102	9,386	383.3	372.7	359.9	344.9	396.7
British Columbia	10,165	9,348	8,988	8,330	11,176	364.3	331.0	313.1	288.0	387.6
Yukon	117	88	100	96	89	492.9	394.6	458.7	421.0	378.7
Northwest Territories	67	85	74	72	94	142.0	175.6	149.8	141.4	180.1
Canada	70,436	68,567	65,172	61,980	78,160	285.9	275.5	259.4	244.4	308.8

¹ Data have been adjusted to take account of approximately 2,000 cases that are not on the data base due to incomplete information.

2.34 Alleged grounds for divorce, by type of offence and reason for marital breakdown, 1986

Alleged grounds	Nfld.	PEI	NS	NB	Que.	Ont.	Man.	Sask.	Alta.	BC	YT	NWT	Canada
Divorces granted under the Divorce Act ¹													
Marital offence													
Adultery	153	33	613	470	8,130	5,005	623	601	2,057	2,615	20	24	20,344
Physical cruelty	83	9	416	248	2,823	2,396	230	284	3,099	733	8	16	10,345
Mental cruelty	93	9	806	248	7,170	2,471	244	297	5,193	936	17	13	17,497
Others ²	1	1	3	4	78	50	3	8	11	16	—	—	175
Sub-total	330	52	1,838	970	18,201	9,922	1,100	1,190	10,360	4,300	45	53	48,361

2.34 Alleged grounds for divorce, by type of offence and reason for marital breakdown, 1986 (concluded)

Alleged grounds	Nfld.	PEI	NS	NB	Que.	Ont.	Man.	Sask.	Alta.	BC	YT	NWT	Canada
Divorces granted under the Divorce Act ¹													
Reason for marriage breakdown													
Addiction to alcohol	5	6	12	9	599	91	5	18	51	39	—	—	835
Separation for not less than three years	283	106	792	524	3,674	12,767	1,334	822	1,759	4,069	30	35	26,195
Desertion by petitioner, not less than five years	—	4	10	78	187	253	14	33	35	107	2	—	723
Others ³	1	1	7	6	112	107	5	6	23	42	—	1	311
Sub-total	289	117	821	617	4,572	13,218	1,358	879	1,868	4,257	32	36	28,064
Total ⁴	619	169	2,659	1,587	22,773	23,140	2,458	2,069	12,228	8,557	77	89	76,425
Divorces granted under the Divorce Act, 1985 ⁵													
Reason for marriage breakdown													
Separation for not less than one year	72	35	395	434	1,712	6,190	724	622	1,428	3,359	20	18	15,009
Adultery	3	—	13	27	570	98	14	23	115	84	1	3	951
Physical cruelty	—	—	6	13	170	29	6	8	137	30	—	—	399
Mental cruelty	1	—	21	12	462	32	5	11	330	43	—	—	917
Total ⁴	76	35	435	486	2,914	6,349	749	664	2,010	3,516	21	21	17,276

¹ The Divorce Act was in force between July 2, 1968 and May 31, 1986.

² These include, sodomy, bestiality, rape, homosexual act and subsequent marriage.

³ These include imprisonment for aggregate period of not less than three years; imprisonment for not less than two years on sentence of death or sentence of 10 years or more; addiction to narcotics; whereabouts of spouse unknown; and non-consummation.

⁴ These are more than the number of divorces because some divorce decrees involve more than one ground.

⁵ The Divorce Act, 1985 came into force on June 1, 1986.

2.35 Divorces by number of dependent children, 1986

Number of children	Nfld.	PEI	NS	NB	Que.	Ont.	Man.	Sask.	Alta.	BC	YT	NWT	Canada
Divorces granted under the Divorce Act ¹													
None	175	98	801	488	6,502	10,975	941	742	3,373	4,517	31	31	28,674
1	145	29	554	294	4,331	3,997	549	382	1,733	1,287	15	18	13,334
2	147	26	570	332	3,861	4,046	513	429	1,794	1,458	20	16	13,212
3	52	2	161	98	1,008	1,026	128	145	535	343	3	6	3,507
4	12	1	39	14	175	242	35	34	133	73	—	2	760
5 or more	3	—	5	6	44	60	8	11	30	18	—	—	185
Total	534	156	2,130	1,232	15,921	20,346	2,174	1,743	7,598	7,696	69	73	59,672
Mean number of children	1.25	0.58	1.11	1.09	1.01	0.81	0.99	1.07	1.00	0.73	0.93	1.04	0.91
Divorces granted under the Divorce Act, 1985 ²													
None	35	29	230	247	1,347	5,965	469	439	1,165	2,919	15	14	12,874
1	16	5	98	106	537	161	121	88	267	254	3	1	1,657
2	17	1	70	85	477	148	115	92	259	252	—	4	1,520
3	7	—	15	25	105	28	35	26	72	47	2	2	364
4	1	—	4	3	8	5	3	6	21	7	—	—	58
5 or more	—	—	3	2	4	—	—	1	4	1	—	—	15
Total	76	35	420	468	2,478	6,307	743	652	1,788	3,480	20	21	16,488
Mean number of children	0.99	0.20	0.75	0.80	0.75	0.09	0.63	0.58	0.62	0.27	0.45	0.71	0.37

¹ The Divorce Act was in force between July 2, 1968 and May 31, 1986.

² The Divorce Act, 1985 came into force on June 1, 1986.

2.36 Divorces by duration of marriage

Duration of marriage	1982		1983		1984		1985		1986	
	No.	%	No.	%	No.	%	No.	%	No.	%
Less than 1 year	195	0.3	162	0.2	174	0.3	177	0.3	207	0.3
1 year	1,403	2.0	1,306	1.9	1,246	1.9	1,220	2.0	1,354	1.8
2 years	2,586	3.7	2,540	3.7	2,259	3.5	2,052	3.3	2,746	3.6
3 "	3,493	4.9	3,364	4.9	2,944	4.6	2,776	4.5	3,823	5.0
4 "	4,425	6.3	4,257	6.2	3,913	6.0	3,628	5.8	4,780	6.3
Total, 4 years or less	12,102	17.2	11,629	16.9	10,536	16.3	9,853	15.9	12,910	17.0
5 years	4,766	6.8	4,687	6.8	4,206	6.4	4,018	6.5	5,005	6.6
6 "	4,811	6.8	4,538	6.6	4,101	6.3	3,914	6.3	4,941	6.5
7 "	4,598	6.5	4,424	6.5	3,979	6.1	3,690	6.0	4,547	6.0
8 "	4,327	6.1	4,236	6.2	3,780	5.8	3,432	5.5	4,162	5.5
9 "	4,071	5.8	3,750	5.5	3,663	5.6	3,258	5.3	3,707	4.9
Total, 5 - 9 years	22,573	32.0	21,635	31.6	19,729	30.2	18,312	29.6	22,362	29.4
10 - 14 years	14,569	20.7	14,655	21.4	14,151	21.6	13,439	21.7	15,768	20.7
15 - 19 "	8,215	11.7	8,356	12.2	8,366	12.8	8,413	13.6	10,263	13.5
20 - 24 "	5,685	8.1	5,253	7.7	5,253	8.1	5,156	8.3	6,461	8.5
25 - 29 "	3,633	5.2	3,570	5.2	3,564	5.5	3,396	5.5	4,159	5.5
30 years and over	3,576	5.1	3,384	4.9	3,496	5.4	3,343	5.4	4,151	5.4
Not stated	83	0.1	85	0.1	77	0.1	68	0.1	86	0.1
Total, divorces	70,436	100.0	68,567	100.0	65,172	100.0	61,980	100.0	76,160	100.0
Median duration of marriage	10.1	...	10.3	...	10.7	...	10.9	...	10.7	...

2.37 Divorces by marital status of husband and wife at time of marriage

Marital status	1982		1983		1984		1985		1986	
	No.	%	No.	%	No.	%	No.	%	No.	%
Husband										
Single	63,317	89.9	61,230	89.3	57,755	88.6	54,620	88.1	66,297	87.0
Widowed	771	1.1	690	1.0	709	1.1	644	1.0	924	1.2
Divorced	6,329	9.0	6,631	9.7	6,690	10.3	6,705	10.8	8,918	11.7
Not stated	19	--	16	--	18	--	11	--	21	--
Total	70,436	100.0	68,567	100.0	65,172	100.0	61,980	100.0	76,160	100.0
Wife										
Single	63,155	89.6	61,163	89.2	57,666	88.5	54,542	88.0	66,311	87.1
Widowed	1,099	1.6	984	1.4	909	1.4	880	1.4	1,242	1.6
Divorced	6,171	8.8	6,411	9.4	6,582	10.1	6,554	10.6	8,597	11.3
Not stated	11	--	9	--	15	--	4	--	10	--
Total	70,436	100.0	68,567	100.0	65,172	100.0	61,980	100.0	76,160	100.0

2.38 Immigrant arrivals, 1961-87

Year	Arrivals	Year	Arrivals	Year	Arrivals
1961	71,689	1970	147,713	1979	112,096
1962	74,586	1971	121,900	1980	143,117
1963	93,151	1972	122,006	1981	128,618
1964	112,606	1973	184,200	1982	121,147
1965	146,758	1974	218,465	1983	89,157
1966	194,743	1975	187,881	1984	88,239
1967	222,876	1976	149,429	1985	84,302
1968	183,974	1977	114,914	1986	99,219
1969	161,531	1978	86,313	1987	152,098

2.39 Immigrant arrivals, by country of last permanent residence

Country of last permanent residence	1984	1985	1986	1987
Europe				
Austria	128	170	201	294
Belgium	236	215	234	382
British Isles				
England	4,116	3,639	4,193	7,028
Northern Ireland	161	146	186	357
Scotland	686	597	567	948
Wales	132	71	139	191
Channel Islands	9	1	3	23
Sub-total, British Isles	5,104	4,454	5,088	8,547
Czechoslovakia	924	903	835	922
Denmark	97	64	91	115
Finland	81	73	68	96
France	1,380	1,401	1,610	2,290
Germany, Democratic Republic of	—	—	33	21
Germany, Federal Republic of	1,727	1,578	1,403	1,906
Greece	555	551	551	771
Hungary	374	614	697	717
Ireland	291	265	434	990
Italy	839	650	715	1,031
Malta	64	75	75	79
Netherlands	545	466	524	575
Norway	29	59	53	80
Poland	4,499	3,617	5,231	7,036
Portugal (incl. Azores and Madeira)	1,342	1,342	2,435	7,300
Spain	266	103	119	216
Sweden	136	162	189	214
Switzerland	389	376	361	633
Turkey	370	206	248	389
USSR	140	110	107	225
Yugoslavia	465	478	481	1,059
Other Europe	920	934	926	1,675
Total, Europe	20,901	18,859	22,709	37,563
Africa				
Angola	19	21	42	68
Egypt	449	394	507	1,066
Ghana	122	194	234	956
Kenya	278	271	356	773
Morocco	251	338	—	—
Mozambique	30	9	36	31
Nigeria	158	89	152	253
South Africa	321	365	938	1,845
Tanzania	420	424	342	468
Uganda	146	129	81	125
Zambia	28	19	39	57
Other Africa	1,330	1,292	2,043	2,859
Total, Africa	3,552	3,545	4,770	8,501
Australasia				
Australia	377	355	338	530
New Zealand	154	147	163	205
Papua New Guinea	4	4	2	16
Other Australasia	—	—	—	2
Total, Australasia	535	506	503	753
Asia				
Bangladesh	84	94	449	473
China	2,214	1,883	1,902	2,625
Cyprus	60	50	66	79
Hong Kong	7,696	7,380	5,893	16,170
India	5,502	4,028	6,940	9,692
Indonesia	131	107	142	219
Iran	1,870	1,728	1,952	3,083
Iraq	495	359	242	296
Israel	429	676	1,206	1,461
Japan	250	205	273	446
Jordan	50	116	102	197
Kampuchea	1,727	1,803	1,745	1,612
Korea, Republic of	801	934	1,143	2,276
Laos	870	379	636	456
Lebanon	1,245	1,657	2,348	3,414
Malaysia	356	332	418	717
Pakistan	611	479	643	991
Philippines	3,748	3,076	4,102	7,343
Singapore	176	166	220	489
Sri Lanka	1,048	815	1,753	4,226
Syria	213	265	387	677

2.39 Immigrant arrivals, by country of last permanent residence (concluded)

Country of last permanent residence	1984	1985	1986	1987
Asia (concluded)				
Taiwan	421	536	695	1,467
Thailand	125	73	86	118
Vietnam	10,950	10,404	6,622	5,668
Other Asia	824	1,052	1,635	3,142
Total, Asia	41,896	38,597	41,600	67,337
North and Central America				
Antigua	71	56	56	66
Bahamas	31	35	28	24
Barbados	258	284	259	325
Bermuda	20	33	37	73
Grenada	168	169	239	304
Haiti	1,397	1,297	1,727	2,121
Jamaica	2,479	2,922	4,652	5,422
Mexico	522	369	591	815
St. Kitts, Nevis and Anguilla	43	33	49	51
St. Vincent	158	192	207	223
Trinidad and Tobago	595	670	940	1,721
United States	6,922	6,669	7,275	7,967
Other North and Central America	3,966	5,088	6,167	6,955
Total, North and Central America	16,630	17,817	22,227	26,067
South America				
Argentina	243	218	243	567
Bolivia	42	45	78	156
Brazil	180	162	241	265
Chile	664	534	639	1,422
Colombia	243	213	256	374
Ecuador	183	210	249	363
French Guiana	1	1	3	3
Guyana	1,896	2,301	3,905	6,073
Paraguay	74	47	70	113
Peru	305	327	624	861
Suriname	4	17	13	59
Uruguay	89	93	137	273
Venezuela	160	188	228	272
Total, South America	4,084	4,356	6,686	10,801
Oceania				
Fiji	388	444	359	512
Mauritius	196	157	312	521
Other Oceania	32	21	53	41
Total, Oceania	616	622	724	1,074
Not stated	25	—	—	2
Total, all countries	88,239	84,302	99,219	152,098

2.40 Immigrant arrivals, by country of citizenship

Country of citizenship	1984	1985	1986	1987	Country of citizenship	1984	1985	1986	1987
Australia	317	319	352	466	Italy	858	666	731	1,098
Austria	127	165	196	265	Jamaica	2,503	2,935	4,641	5,414
Belgium	183	181	197	281	Japan	246	198	247	425
Britain and colonies	10,167	9,563	9,463	21,313	Lebanon	1,254	1,684	2,575	3,810
Central America	3,577	4,437	5,240	5,987	Mexico	509	425	665	809
China	1,526	1,816	1,956	2,641	Morocco	248	329	386	503
Czechoslovakia	415	567	577	773	Netherlands	560	509	540	647
Denmark	93	73	93	109	New Zealand	164	148	176	208
Egypt	447	348	513	1,023	Norway	31	54	56	80
Finland	83	69	68	92	Pakistan	668	512	690	1,076
France	1,169	1,178	1,296	1,660	Philippines	3,801	3,150	4,158	7,362
Germany, Federal					Poland	3,588	2,819	4,806	6,938
Republic of	1,610	1,441	1,230	1,700	Portugal	1,398	1,451	2,615	7,692
Greece	580	582	546	764	South Africa	271	310	717	1,471
Haiti	1,418	1,320	1,756	2,133	South America	4,039	4,261	6,546	10,720
Hungary	310	522	648	674	Spain	137	98	121	178
India	5,701	4,209	7,144	10,175	Sri Lanka	1,086	845	1,836	4,463
Ireland	327	287	478	1,074	Sweden	128	158	185	198
Israel	446	679	1,205	1,498	Switzerland	326	313	294	562

2.40 Immigrant arrivals, by country of citizenship (concluded)

Country of citizenship	1984	1985	1986	1987	Country of citizenship	1984	1985	1986	1987
Trinidad and Tobago	606	699	956	1,675	Other Asian	12,889	11,183	9,454	12,957
Turkey	338	202	257	397	Other European	613	720	802	1,372
USSR	45	51	70	180	Stateless	13,190	12,590	11,283	13,720
United States	6,660	6,538	7,072	7,707	Other	1,642	1,717	2,082	2,844
Yugoslavia	487	492	487	1,077					
Other African	1,458	1,489	1,813	3,887	Total	88,239	84,302	99,219	152,098

2.41 Intended destination of immigrants

Province or territory	1984			1985		
	Male	Female	Total	Male	Female	Total
Newfoundland	163	136	299	161	164	325
Prince Edward Island	53	56	109	57	56	113
Nova Scotia	490	544	1,034	476	498	974
New Brunswick	283	317	600	318	291	609
Quebec	7,193	7,448	14,641	7,449	7,435	14,884
Ontario	18,772	22,755	41,527	19,218	21,512	40,730
Manitoba	1,984	1,919	3,903	1,754	1,661	3,415
Saskatchewan	1,152	998	2,150	945	960	1,905
Alberta	4,909	5,761	10,670	4,243	4,758	9,001
British Columbia	5,897	7,293	13,190	5,590	6,649	12,239
Yukon and Northwest Territories	48	68	116	55	52	107
Not stated	—	—	—	—	—	—
Canada	40,944	47,295	88,239	40,266	44,036	84,302

	1986			1987		
	Male	Female	Total	Male	Female	Total
Newfoundland	143	131	274	231	227	458
Prince Edward Island	89	79	168	76	83	159
Nova Scotia	585	512	1,097	632	595	1,227
New Brunswick	353	288	641	329	313	642
Quebec	10,194	9,265	19,459	14,418	12,404	26,822
Ontario	24,149	25,481	49,630	42,856	41,951	84,807
Manitoba	1,971	1,778	3,749	2,540	2,259	4,799
Saskatchewan	1,002	858	1,860	1,078	1,041	2,119
Alberta	4,641	5,032	9,673	5,765	6,210	11,975
British Columbia	5,945	6,607	12,552	8,970	9,943	18,913
Yukon and Northwest Territories	48	68	116	67	85	152
Not stated	—	—	—	13	12	25
Canada	49,120	50,099	99,219	76,975	75,123	152,098

2.42 Sex of immigrants

Year	Male	Female	Total
1977	54,834	60,080	114,914
1978	40,057	46,256	86,313
1979	54,823	57,273	112,096
1980	71,939	71,178	143,117
1981	63,122	65,496	128,618
1982	59,498	61,649	121,147
1983	41,505	47,652	89,157
1984	40,944	47,295	88,239
1985	40,266	44,036	84,302
1986	49,120	50,099	99,219
1987	76,975	75,123	152,098

2.43 Marital status of immigrants

Year, sex and age group	Single	Married	Widowed	Divorced	Separated	Total
1984						
Male	20,740	18,786	745	485	188	40,944
Female	20,332	21,492	4,101	924	446	47,295
1985						
Male	20,729	18,174	653	494	216	40,266
Female	19,397	19,752	3,621	858	408	44,036
1986						
Male						
0 - 4 years	2,464	—	—	—	—	2,464
5 - 9 "	3,345	—	—	—	—	3,345
10 - 14 "	3,485	2	—	—	—	3,487
15 - 19 "	4,195	42	2	1	—	4,240
20 - 24 "	5,147	1,435	1	12	5	6,600
25 - 29 "	3,879	4,121	4	64	44	8,112
30 - 34 "	1,968	4,390	11	138	46	6,553
35 - 39 "	643	3,142	17	137	41	3,980
40 - 44 "	196	1,968	6	98	26	2,294
45 - 49 "	70	1,338	16	64	21	1,509
50 - 54 "	50	1,141	25	37	8	1,261
55 - 59 "	32	1,251	48	26	14	1,371
60 - 64 "	28	1,285	87	35	11	1,446
65 - 69 "	23	970	108	27	8	1,136
70 years and over	26	925	341	21	9	1,322
Total, male	25,551	22,010	666	660	233	49,120
Female						
0 - 4 years	2,347	—	—	—	—	2,347
5 - 9 "	3,101	—	—	—	—	3,101
10 - 14 "	3,194	11	1	—	1	3,207
15 - 19 "	3,611	430	—	—	—	4,042
20 - 24 "	3,776	3,416	11	13	16	7,232
25 - 29 "	2,645	4,808	14	87	50	7,604
30 - 34 "	1,482	4,001	34	171	76	5,764
35 - 39 "	724	2,806	56	166	64	3,816
40 - 44 "	309	1,677	70	120	74	2,250
45 - 49 "	164	1,270	142	115	51	1,742
50 - 54 "	131	1,297	284	78	41	1,831
55 - 59 "	127	1,310	399	83	45	1,964
60 - 64 "	117	1,060	596	76	48	1,897
65 - 69 "	85	593	540	42	37	1,297
70 years and over	119	422	1,399	47	18	2,005
Total, female	21,932	23,101	3,547	998	521	50,099
1987						
Male						
0 - 4 years	4,159	—	—	—	—	4,159
5 - 9 "	6,005	—	—	—	—	6,005
10 - 14 "	5,830	8	—	1	—	5,838
15 - 19 "	6,070	63	4	—	—	6,137
20 - 24 "	7,187	1,766	3	10	14	8,980
25 - 29 "	6,475	5,765	7	84	64	12,395
30 - 34 "	3,544	7,487	15	193	94	11,333
35 - 39 "	1,017	5,923	11	182	78	7,211
40 - 44 "	305	3,699	19	134	47	4,204
45 - 49 "	115	2,214	18	61	28	2,436
50 - 54 "	62	1,608	39	49	16	1,774
55 - 59 "	54	1,646	67	37	8	1,812
60 - 64 "	47	1,583	87	26	10	1,753
65 - 69 "	20	1,196	123	21	10	1,370
70 years and over	25	1,109	395	30	9	1,568
Total, male	40,915	34,067	788	827	378	76,975
Female						
0 - 4 years	3,889	—	—	—	—	3,889
5 - 9 "	5,638	—	—	—	—	5,638
10 - 14 "	5,363	14	—	—	1	5,378
15 - 19 "	5,376	547	—	2	1	5,926
20 - 24 "	5,075	4,299	4	19	11	9,408
25 - 29 "	3,840	7,408	28	98	69	11,443
30 - 34 "	2,290	7,075	41	221	84	9,711
35 - 39 "	997	4,969	75	239	73	6,353
40 - 44 "	445	2,927	107	175	66	3,720
45 - 49 "	225	1,928	166	145	56	2,520
50 - 54 "	149	1,688	315	122	52	2,326
55 - 59 "	142	1,608	548	108	66	2,472
60 - 64 "	125	1,306	730	85	59	2,305
65 - 69 "	83	719	760	61	50	1,673
70 years and over	116	551	1,603	54	37	2,361
Total, female	33,753	35,039	4,377	1,329	625	75,123

2.44 Lifetime migration of Canadian-born population (thousands)

Province or territory of birth	Province or territory of residence, 1986												Total (place of birth)
	Nfld.	PEI	NS	NB	Que.	Ont.	Man.	Sask.	Alta.	BC	YT	NWT	
Newfoundland	529.9	1.3	21.9	6.6	30.5	87.5	5.0	2.6	18.5	12.6	0.2	1.0	717.6
Prince Edward Island	0.6	99.3	8.0	5.8	2.3	19.2	0.9	0.7	4.7	3.5	0.1	0.2	145.3
Nova Scotia	5.5	6.2	696.3	28.4	12.7	119.1	6.1	3.1	27.0	27.3	0.3	0.9	932.9
New Brunswick	2.1	4.0	26.4	580.0	48.7	81.8	4.0	2.2	18.0	15.8	0.3	0.6	783.9
Quebec	3.0	1.9	15.0	21.1	5,664.0	340.4	9.8	6.2	45.8	55.2	0.7	1.5	6,164.6
Ontario	10.6	5.9	38.7	23.7	136.4	5,971.5	47.2	27.3	157.0	174.2	2.7	4.0	6,599.2
Manitoba	0.7	0.4	3.7	2.1	8.8	95.3	756.8	41.0	84.2	123.0	0.8	3.5	1,120.3
Saskatchewan	0.5	0.4	2.6	1.5	5.7	75.0	48.7	790.7	193.3	191.6	1.7	2.1	1,313.8
Alberta	1.2	0.7	5.1	2.6	7.0	60.8	15.6	33.9	1,319.5	211.5	2.5	3.7	1,664.1
British Columbia	0.6	0.5	4.7	2.2	6.5	55.0	10.9	15.0	93.7	1,393.1	3.2	2.0	1,587.4
Yukon	—	—	0.2	0.1	0.2	1.3	0.3	0.3	2.0	4.6	7.8	0.2	17.0
Northwest Territories	—	—	0.2	0.1	0.6	1.4	0.4	0.8	3.9	2.1	0.4	29.4	39.3
Total (place of residence)	554.7	120.6	822.8	674.2	5,923.4	6,908.3	905.7	923.8	1,967.6	2,214.5	20.7	49.1	21,085.4

Note: Figures shown in the diagonal are not strictly applicable in this table which shows interprovincial lifetime migration. They do not even imply interprovincial migration. These data are included for information purposes only.

2.45 Internal migration and migration from outside Canada¹, for Census Metropolitan Areas, 1976-81 and 1981-86 (population 5 years and over)

Census Metropolitan Area (CMA) ²	Internal migration				Migration to CMAs from outside Canada ¹	
	1976-81		1981-86		1976-81	1981-86
	Net migration	In-migration	Out-migration	Net migration ³		
Calgary	66,460	104,060	110,165	-6,105	30,440	23,155
Chicoutimi-Jonquière	-3,005	9,990	15,895	-5,905	450	495
Edmonton	34,975	97,280	112,835	-15,555	27,735	22,275
Halifax	-4,750	42,920	35,860	7,060	3,865	4,510
Hamilton	-3,230	48,710	43,815	4,895	10,725	9,080
Kitchener	-1,585	39,345	29,355	9,990	6,850	6,255
London	-1,930	44,580	42,600	1,980	5,865	5,735
Montreal	-105,590	181,125	163,350	17,775	64,495	59,615
Oshawa	9,300	32,005	25,455	6,550	2,350	2,435
Ottawa-Hull	-8,010	107,680	72,850	34,830	18,740	20,445
Ottawa-Hull (Ont. part)	-3,465	90,340	62,345	27,995	17,210	18,535
Ottawa-Hull (Que. part)	-4,540	17,335	10,505	6,830	1,535	1,910
Quebec City	-1,285	49,700	47,025	2,675	4,430	3,945
Regina	-1,780	26,195	24,800	1,395	3,250	2,775
Saint John (NB)	-2,725	10,055	10,820	-765	1,095	735
Saskatoon	7,770	34,525	26,830	7,695	3,765	3,060
St. Catharines-Niagara	-5,495	23,505	28,775	-5,270	4,560	4,395
St. John's (Nfld.)	-3,065	15,190	15,000	190	1,360	955
Sherbrooke	..	15,770	15,795	-25	..	990
Sudbury	-12,800	11,540	19,675	-8,135	850	815
Thunder Bay	-940	10,855	10,265	590	1,550	840
Toronto	-18,240	264,770	184,495	80,275	152,895	143,560
Trois-Rivières	-460	12,415	15,675	-3,260	530	265
Vancouver	18,820	135,230	102,090	33,140	61,250	50,190
Victoria	8,730	41,110	33,330	7,780	6,565	5,010
Windsor	-12,290	16,985	19,085	-2,100	5,780	4,485
Winnipeg	-22,970	57,055	52,300	4,755	19,135	15,040

¹ Includes immigrants and returning Canadians.

² Figures for 1976-81 are based on 1981 CMA boundaries; while figures for 1981-86 are based on 1986 CMA boundaries.

³ Net migration is in-migration minus out-migration.

2.46 Interprovincial migration and migration¹, (population 5 years and over) from outside Canada, 1976-81 and 1981-86

Province or territory	1976-81		1981-86			
	Net inter-provincial migration	Migration to province (from outside Canada) ¹	In-migration	Out-migration	Net inter-provincial migration	Migration to province (from outside Canada) ¹
Newfoundland	-19,835	2,560	17,090	33,640	-16,550	1,680
Prince Edward Island	-10	1,230	9,480	7,950	1,530	890
Nova Scotia	-8,420	8,400	54,985	48,705	6,280	7,895
New Brunswick	-8,510	7,400	36,530	37,900	-1,370	5,045
Quebec	-141,725	84,700	66,915	130,215	-63,300	72,440
Ontario	-78,065	245,265	285,520	186,170	99,350	221,325
Manitoba	-43,585	24,410	56,680	58,230	-1,550	19,315
Saskatchewan	-5,825	11,275	54,700	57,510	-2,810	8,880
Alberta	197,650	75,485	177,285	204,950	-27,665	55,985
British Columbia	110,930	94,450	151,675	142,175	9,500	69,610
Yukon	-550	445	4,620	7,285	-2,665	280
Northwest Territories	-2,055	580	9,005	9,760	-755	560
Total	—	556,200	924,490	924,490	—	463,905

¹ Includes immigrants and returning Canadians.

2.47 Population 5 years and over by mobility status, Canada and provinces, 1981-86 (based on 20% sample data)

Mobility status (based on residence as of June 3, 1981)	Province of residence as of June 3, 1986													
	Nfld.		PEI		NS		NB		Que.		Ont.		Man.	
	'000	%	'000	%	'000	%	'000	%	'000	%	'000	%	'000	%
Non-movers ¹	368.8	70.9	77.9	67.6	505.0	62.9	429.6	66.0	3,549.0	59.0	4,636.9	55.5	553.5	57.1
Movers ²	151.1	29.1	37.3	32.4	297.3	37.0	221.0	34.0	2,468.4	41.0	3,724.4	44.5	415.5	42.9
Non-migrants ³	87.3	16.8	17.9	15.5	165.4	20.6	127.4	19.6	1,422.3	23.6	2,037.8	24.4	264.9	27.3
Migrants ⁴	63.8	12.3	19.4	16.8	131.9	16.4	93.6	14.4	1,046.1	17.4	1,686.5	20.2	150.6	15.5
From same province	45.0	8.7	9.0	7.8	69.0	8.6	52.0	8.0	906.8	15.1	1,179.7	14.1	74.6	7.7
From different province	17.1	3.3	9.5	8.2	55.0	6.9	36.5	5.6	66.9	1.1	285.5	3.4	56.7	5.9
From outside Canada	1.7	0.3	0.9	0.8	7.9	1.0	5.0	0.8	72.4	1.2	221.3	2.6	19.3	2.0
Total ⁵	519.9	100.0	115.2	100.0	802.3	100.0	650.6	100.0	6,017.4	100.0	8,361.2	100.0	968.9	100.0
	Sask.		Alta.		BC		YT		NWT		Canada			
	'000	%	'000	%	'000	%	'000	%	'000	%	'000	%	'000	%
Non-movers ¹	528.6	58.1	1,039.3	48.7	1,339.7	50.7	7.7	36.5	17.3	37.9	13,053.2	56.3		
Movers ²	381.6	41.9	1,094.6	51.3	1,303.3	49.3	13.4	63.5	28.3	62.1	10,136.0	43.7		
Non-migrants ³	206.5	22.7	599.7	28.1	672.1	25.4	6.4	30.3	14.5	31.8	5,622.2	24.2		
Migrants ⁴	175.1	19.2	494.9	23.2	631.3	23.9	7.0	33.2	13.8	30.3	4,513.9	19.5		
From same province	111.5	12.3	261.6	12.3	410.0	15.5	2.1	10.0	4.2	9.2	3,125.5	13.5		
From different province	54.7	6.0	177.3	8.3	151.7	5.7	4.6	21.8	9.0	19.7	924.5	4.0		
From outside Canada	8.9	1.0	56.0	2.6	69.6	2.6	0.3	1.4	0.6	1.3	463.9	2.0		
Total ⁵	910.2	100.0	2,133.9	100.0	2,643.0	100.0	21.1	100.0	45.6	100.0	23,189.2	100.0		

¹ Persons living in same dwelling on June 3, 1986 as that of June 3, 1981.

² Persons whose dwelling as of June 3, 1986 was in a different dwelling than that of June 3, 1981.

³ Persons whose residence as of June 3, 1986 was in a different dwelling but in the same municipality as that of June 3, 1981.

⁴ Persons whose residence as of June 3, 1986 was in a different municipality than that of June 3, 1981.

⁵ Excludes inmates in collective dwellings and persons in the armed forces or in other government services stationed outside Canada.

2.48 Persons granted Canadian citizenship

Year	Number	Year	Number
1971	63,558	1979	156,699
1972	80,866	1980	118,590
1973	104,697	1981	94,457
1974	130,278	1982	87,468
1975	137,507	1983	90,328
1976	117,276	1984	109,504
1977	107,899	1985	126,466
1978	223,018	1986	103,800

Sources

2.1 - 2.27, 2.44 - 2.47 Census Operations Division, Statistics Canada; Demography Division, Statistics Canada.

2.28 - 2.37 Health Division, Statistics Canada.

2.38 - 2.43 Public Affairs Branch, Department of Employment and Immigration.

2.48 Citizenship Registration and Promotion, Department of the Secretary of State.

CHAPTER 3

HEALTH

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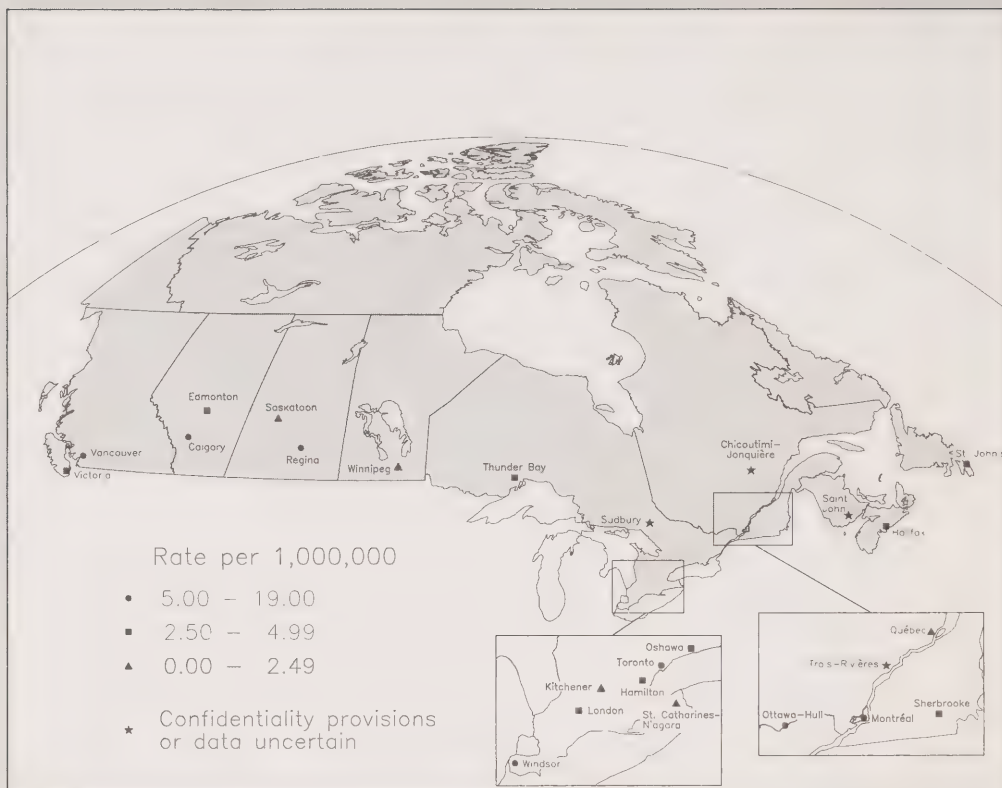
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MORTALITY OF PEOPLE WITH AIDS, 1980-1988

By Census Metropolitan Area

This map presents mortality of people who have been diagnosed with AIDS. They may actually have died from other causes, such as motor vehicle accidents or heart disease.

AIDS is a predominantly urban fact. Mortality rates are higher in Canada's larger metropolitan areas, such as Toronto, Montreal and Vancouver. There are exceptions: Edmonton, Winnipeg and Quebec are larger Census Metropolitan Areas (CMAs) with lower rates, whereas Windsor and Regina are smaller CMAs with higher rates.

Note: 1980-88 data averaged per annum by CMA of residence at the onset of the disease.

CHAPTER 3

HEALTH

3.1 Health status

Canadians enjoy a quality of life equal to or better than that of the people of most other countries. Overall mortality rates have declined significantly since early in the 20th century. The burden of ill health on individuals has eased enormously over the past 50 years and many once prevalent infectious diseases have now been virtually eliminated. A majority of adult Canadians profess to be in good to excellent health for their age, and to be satisfied with their health.

Despite these encouraging signs, several important health problems remain. Currently, the leading causes of death are cardiovascular diseases, cancer and accidents. Hospital morbidity data also identify the continued incidence of heart disease, strokes, cancer, accidents and respiratory disease. They also point out the considerable burden of ill-health imposed by mental disorders. The rapid increase in the number of reported cases of Acquired Immunodeficiency Syndrome (AIDS) poses a challenge to the public health field.

In 1986, a federal publication entitled *Achieving Health for All: A Framework for Health Promotion* endorsed a broader concept of health "as a state of complete physical, mental and social well-being . . . and not something that comes about merely as a result of treating and curing illnesses and injuries".

Achieving Health for All deemed three challenges to be of national importance to the health of Canadians: reducing inequities in the health of low- versus high-income groups in Canada; increasing the effort to find new and more effective ways of preventing the occurrence of injuries, illnesses, chronic conditions and their resulting disabilities; and enhancing people's capacity to cope with chronic conditions, disabilities and mental health problems.

In regard to reducing inequities, the report notes that the burden of ill-health in Canada is concentrated disproportionately among members of disadvantaged groups. Members of low-income

groups have a reduced life expectancy, and higher rates of disability and illness, including mental health disorders.

An increase in the prevention effort is required to counteract the various forms of preventable diseases and injuries which continue to undermine the health and quality of life of many Canadians. It is estimated that the use of preventive measures can lead to a further 50% reduction in the incidence of lung cancer and heart disease.

Many Canadians suffer from chronic disease, disability or various forms of emotional stress, and lack the community support to help them cope and to live meaningful and productive lives.

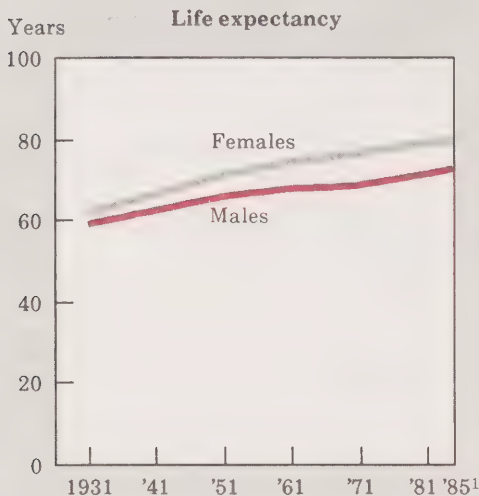
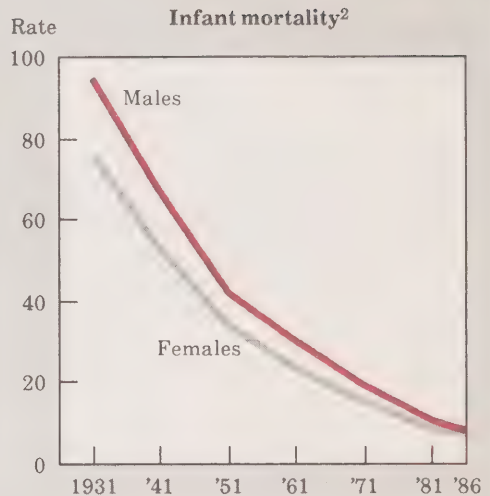
In 1985, the Department of National Health and Welfare commissioned Canada's first National Health Promotion Survey. The survey focused upon how Canadians see their health, and on the things that they are doing in order to be healthy. Canada's Health Promotion Survey covered a broad range of topics including personal practices like alcohol, tobacco and drug use; nutrition, exercise and safety; personal preventive practices; social support and the influence of family and friends; and health promotion in the home and the workplace. The results of the survey were published by the Department of National Health and Welfare in *The Active Health Report*, and in an overview, *Technical Report*.

Further reports from the survey will focus in greater detail on specific issues like prevention of alcohol, tobacco and drug abuse and implications for population groups such as seniors, women and the economically disadvantaged.

In October 1988, the department issued a discussion paper entitled *Mental Health for Canadians: Striking a Balance*. This document builds upon *Achieving Health for All* in examining current issues in mental health.

Canadians rate their health. New information regarding how adult Canadians rate their health, and about a range of lifestyle factors that can affect the health of Canadians is available from two recent surveys by Health and Welfare Canada

Chart 3.1

Trends in life expectancy and infant mortality¹ 1983-85 data.² Deaths per 1,000 live births.

and Statistics Canada. These surveys confirmed that a majority of adult Canadians consider themselves to be in good to excellent health for their age, that a majority of adult Canadians are very satisfied or somewhat satisfied with their health, and that a majority of adult Canadians followed positive lifestyle practices. Equally apparent, however, were the substantial differences in each of these measures for specific groups. These differences are documented more fully in the reports on the respective surveys.

3.1.1 Life expectancy

Life expectancy at birth, or mean length of life, is a convenient way of summarizing the state of mortality and is to some extent an indicator of the population's overall health status. High life expectancy attained in industrialized nations attests to the success of the battle against infectious diseases, which were a threat primarily during the first year of life.

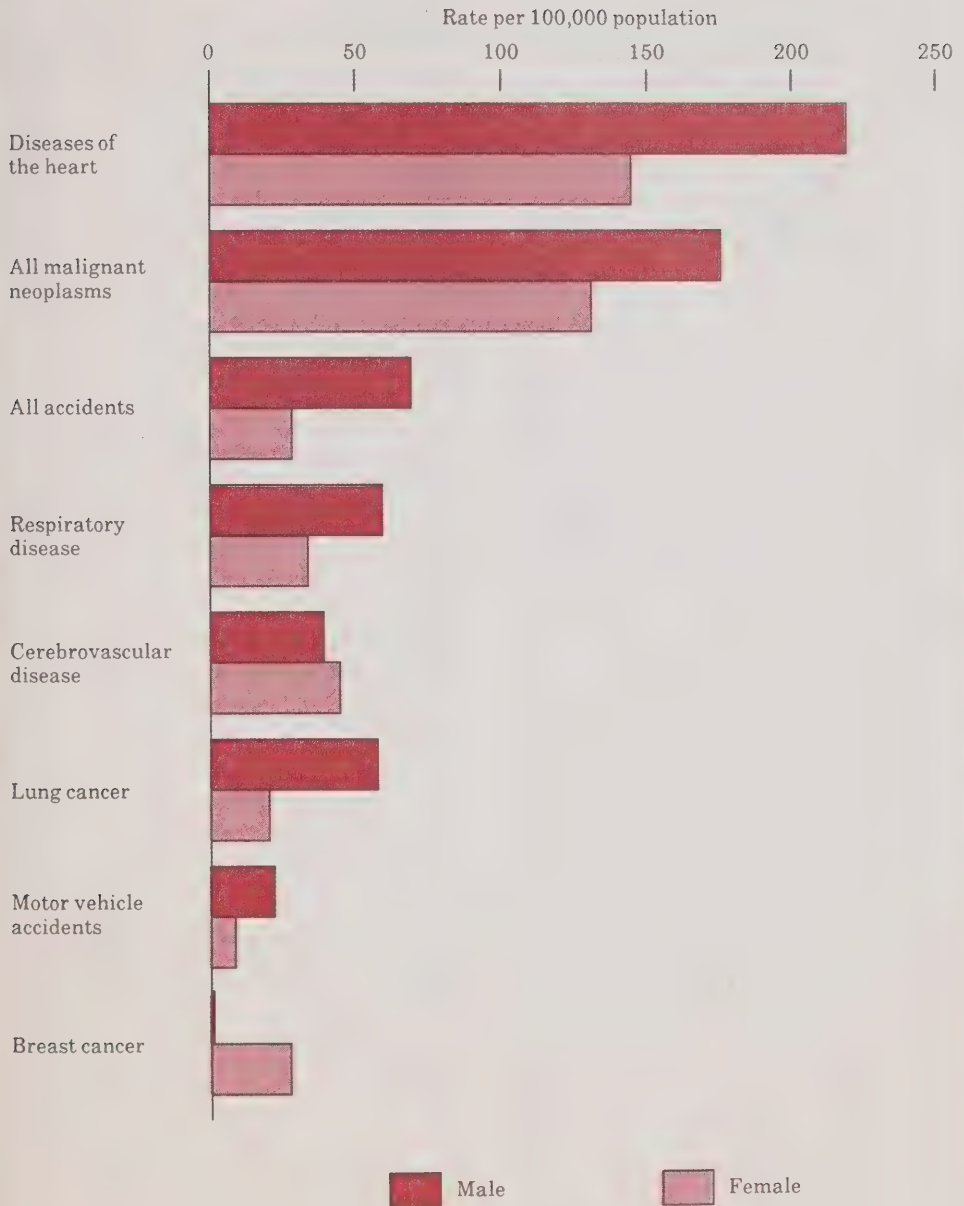
Canada has a high average life expectancy for both males and females that compares favourably with leading countries such as Sweden and Japan. It reached 71.9 years for males and 79.0 for females in 1981. The continued decline in age-specific death rates has resulted in further

improvements in longevity for Canadian males and females since 1981. According to preliminary life tables prepared for the 1983-85 period, average life expectancy has increased by approximately one year for both males and females, and reached 72.9 years for males and 79.8 years for females in 1985. Although the gap between male and female life expectancy has decreased since 1976, female life expectancy has remained nearly seven years greater than that for males.

The primary change since 1931 has been not so much the length of old age as the proportion of the population reaching this level. Under prevailing conditions in 1931, 66% of the male population could expect to reach the age of 60; by 1981 the proportion had increased to 83%; the corresponding figures for females were 68% and 90%. (*Longevity and historical life tables 1921-1981 (Abridged), Canada and the Provinces*, Statistics Canada 89-506, July 1986.)

Infant mortality. A major reason for the overall increase in life expectancy at birth is the drop in infant mortality. Death rates for infants under one year of age declined about 78% between 1953 and 1986. Improvement is due to factors such as better health care before and after birth, and to improved nutrition and living standards. However,

Chart 3.2

Standardized death rates, 1986

Note: Age-standardized to the 1971 Canadian population.

the death rate in recent years has remained 20% to 24% higher for male infants than for females.

3.1.2 Causes of death

The increase in life expectancy that has been observed in Canada and other countries throughout this century is the result of the shift in the cause pattern of mortality toward degenerative diseases that occur primarily in the older age groups. For example, in 1921, while heart disease and cancer were among the leading causes of death, as they are today, they accounted for just 16% of total deaths. By 1986, this figure had increased to 58% of total deaths. Over the same time period, infectious diseases such as tuberculosis, which accounted for 15% of total deaths in 1921, diminished to less than 1% of total deaths in 1986.

In the 10-year period, from 1976 to 1986, the age-adjusted death rate (which eliminates the effects of changes in the age structure of the population) declined slightly more for males than for females. This is also reflected in the slight convergence of male and female life expectancy. Of the leading causes of death, the greatest declines in age-adjusted death rates in the last decade, occurred for cerebrovascular disease, which fell by more than one-third for both males and females, followed by declines for accidents and heart disease.

Among the leading causes of death, cancer was the only cause for which death rates increased during the 1976-86 period, by about 7% for both males and females. Within this category, there has been a dramatic increase in the female death rate from lung cancer, which nearly doubled between 1976 and 1986.

An examination of leading causes of death by age group for 1986 shows that below age 45, accidents were by far the highest. This was particularly true for males; males aged 5-19 were more than twice as likely to die in accidents as females and in the 20-44 age range the death rate due to accidents, among males, was almost four times as high as that for females. Cancer was the leading cause of death among females aged 20-44 in 1986, at a rate slightly greater than that for males. Suicide was among the leading causes of death for both males and females below age 45 in 1986, although it occurs much more frequently among males. In the 20-44 age range, for example, suicide was the second-ranking cause of death for males and the third-ranking cause for females; however, the male suicide rate, at 30.9 per 100,000 population, was more than four times that for females (7.7).

In the 45-64 age range, cancer and diseases of the heart were the most frequent causes of death among both males and females in 1986, however, the male death rate in this age range was more than three times the female death rate for diseases of the heart.

Among the Canadian population aged 65 and over, diseases of the heart were the leading causes of death for both males and females in 1986 by a wide margin, followed by cancer. Respiratory diseases and cerebrovascular diseases (strokes) were also prominent as causes of death in this age range.

Potential years of life lost (PYLL) is a useful indicator of premature deaths. It allows heavier weight to be given to deaths occurring at younger ages. This calculation is applied to deaths occurring between birth and age 75, multiplying the number of deaths in a specific age group by the remaining years of life to age 75.

An examination of the potential years of life lost for 10 leading causes in 1985 is shown in Table 3.6. Several contrasts emerge when leading causes of PYLL are compared to leading causes of death. First, while malignant neoplasms were the second-ranking cause of death at all ages, they were the leading cause of PYLL and death among deaths under age 75. Second, accidents and suicide have a much greater impact on PYLL than on the number of deaths. While these causes accounted for 11% of deaths below age 75 in 1985, they accounted for 24% of potential years of life lost. There is also a marked sex difference in PYLL due to accidents and suicide. These causes accounted for more than three times as many potential years of life lost among males as females, and they represented 28% of PYLL for males, compared with just 16% for females. The emphasis of the PYLL indicator on early mortality gives greater significance to causes of death such as perinatal mortality and congenital anomalies, which accounted for less than 3% of deaths under 75 but represented over 10% of PYLL.

3.1.3 Morbidity and disability

The measure used to express morbidity is patient-days in general and allied special hospitals. The leading causes of hospitalization in 1984-85 were cardiovascular disease, mental disorders, accidents, cancer and respiratory diseases.

For babies less than a year old, respiratory diseases accounted for 26% of hospital days, and were the leading cause of hospitalization. For children of 1-14 years, the leading causes were respiratory diseases and accidents.

Childbirth, accidents and mental disorders are the three main reasons why Canadians from 15 to 44 years old are admitted to hospital. In the next age group, 45-64 years, cardiovascular disease leads, followed by cancer, accidents and mental disorders.

Among seniors, the leading causes of hospitalization are cardiovascular disease, cancer and respiratory diseases.

The Canadian Health and Disability Survey (*Report of the Canadian Health and Disability Survey, 1983-84*, Statistics Canada Catalogue 82-555) was a household survey administered as a supplement to the Canadian Labour Force Survey in October of 1983 and June of 1984. The combined results are intended to be representative of the Canadian population, excluding those living in the Yukon and Northwest Territories, persons living on Indian reserves, full-time members of the armed forces and inmates of institutions (the exclusions constitute less than 3% of the population). This survey represents a first attempt to collect national data on the prevalence of disability according to the functional definitions of disability and handicap accepted by the World Health Organization. In this survey, adult respondents aged 15 or over were considered disabled if they indicated that they had trouble performing any one of 17 activities of daily living, such as walking up and down a flight of stairs, or if they experienced a limitation in the kind or amount of activity they could perform at home, work or school because of a long-term physical condition or health problem, or if they had a mental handicap. Children under the age of 15 were classified as disabled on the basis of using one or more of a number of aids or prostheses; if they had a long-term health condition that limited activities normal for a child of that age; if they were required to attend a special school or classes because of a physical condition or health problem; or if they had other specified long-term health conditions. Highlights from the survey follow.

Among the adult population, 12.8%, representing nearly 2.5 million Canadians, reported some level of disability. The rate of disability increased with age, from a low of 3.8% among those aged 15-24 to 38.6% of those aged 65 or over.

The most frequently reported types of disability were those related to mobility, such as climbing stairs. Mobility problems were reported by 65% of disabled persons. Difficulties with body movements, such as reaching for things (agility) were reported by 54% of disabled persons. These were followed by hearing and seeing disabilities. Uncorrected hearing disabilities were reported by

634,000 Canadians, and 331,000 reported uncorrected seeing disabilities. For each disability mentioned, the respondent was asked to identify the main condition or health problem that caused the disability. The most prevalent cause of disabling conditions for adults were diseases of the musculoskeletal system and connective tissue, arthritis and rheumatism, and hearing disorders.

Although many disabled adults were already using special aids or devices, many reported either unmet needs or additional requirements for aids. An estimated 85,000 persons reported the need for some feature such as ramps or elevators to improve access to housing. Approximately 120,000 persons expressed the need for mobility aids such as handrails within their houses; 83,000 people with a hearing disability required hearing aids, and 20,000 with a seeing disability reported the need for a pair of glasses.

The Canadian Health and Disability Survey also found that disability tends to be accompanied by socio-economic disadvantage. Disabled adults are much less likely to be employed, and much more likely to be classified as "not in the labour force" than those who are not disabled. In the 15-64 age range, 42% of those reporting a disability were employed, compared to 67% of those who were not disabled. More than one-half (52%) of disabled adults aged 15-64 were not in the labour force (not working and not looking for work), compared with one-quarter (25%) of non-disabled adults in the same age range.

Disabled adults are more likely to have received fewer years of formal education than those without a disability. Of those reporting a disability, 44% had eight or fewer years of schooling, compared to 17% of the non-disabled population. Conversely, 15% of those with a disability had received at least some postsecondary education, compared with 32% of the non-disabled population. This applied to both younger and older age groups.

Lower incomes tend to be reported more often among disabled adults than among non-disabled adults, and this is due, in part, to the lower levels of labour force participation among disabled adults. A comparison of income levels between those who reported a disability and the total Canadian population indicated that 31% of income recipients in the total population had incomes of \$20,000 or more, compared with 15% of those with a disability (the Canadian Health and Disability Survey did not collect data on income from the non-disabled respondents, thus the comparisons are made with the total population, based on the results of the 1984 Survey of Consumer Finances). Approximately 414,000 disabled adults

reported income from one or more pension or assistance plans; disability pensions from the Canada Pension Plan or the Quebec Pension Plan were the most frequently cited sources of such incomes.

Many disabled adults were restricted in their ability to travel and those who were able to leave their homes may have required special transportation. Among the 2,448,000 disabled adults, 158,000 were unable to leave their residences because of their condition or health problems; 302,000 could not take long-distance trips and 121,000 reported that they could not travel at all.

Local public transportation was available to 59% of those who were able to leave their homes, and among those who did have access, some 281,000 persons (21%) reported difficulties in using it. The most frequently mentioned difficulties concerned getting on or off the bus or streetcar, or simply getting to the bus stop. Some communities have a special bus or van service for people who cannot use regular public transport. Approximately 142,000 disabled adults indicated a need for this service, of whom 80,000 indicated that it was available to them. Those disabled adults who were able to leave their homes and make trips of more than 80 kilometres were asked if they had difficulty using each of three modes of long-distance public transportation. Problems with air travel were mentioned by 7%, difficulties in travelling by bus were mentioned by 15%, and 7% mentioned problems in travelling by rail. Boarding was the most frequently reported problem for each mode of transport.

Approximately 302,000 children under the age of 15, or 6% of the Canadian population in this age group, were identified as disabled. This prevalence ranged from 4% of those aged 0-4 to 7% among those aged 10-14.

Disabled children were most likely to be identified by being reported to have an activity limitation at school, play or in other typical activities (110,000); other categories frequently mentioned were learning disabilities (66,000), heart conditions (40,000), hearing trouble (33,000) and other chronic health problems (37,000). For the 110,000 children with a general activity limitation, diseases of the respiratory system were the most common cause (23%) of such limitation.

Of the 224,000 disabled children aged 5-14 in Canada, many required special schooling. In October 1983, 12,000 disabled children who were going to school attended special schools. A further 10,000 children were attending special classes in a regular school and 31,000 were attending a mix of regular and special classes. A learning

disability was the most frequently cited problem requiring attendance at special schools or classes.

Canada's disability database program. The first data collection activity in the creation of a national database on disability was the Canadian Health and Disability Survey which was conducted in 1983-84 and described in detail in the preceding part of this section.

The second activity toward the creation of this database was the inclusion of a question on disability on the 1986 Census population questionnaire distributed to one out of every five households across Canada. The primary purpose for the inclusion of this question on the Census was to identify the disabled population for a follow-up, more in-depth survey, *The Health and Activity Limitation Survey*.

The Health and Activity Limitation Survey, conducted by Statistics Canada in 1986-87, was the third data collection activity in the building of the national database on disability. The release of the data from this first postcensal survey gives data users the opportunity to obtain comprehensive and detailed information on the characteristics of disabled persons, and on the socio-economic circumstances they encounter.

The Health and Activity Limitation Survey was the first to include residents from the 10 provinces and the two territories, residents of remote areas of the North and Indian reserves, as well as long-term residents of institutions such as orphanages, children's homes, homes for the aged and other health-care facilities. Greater geographic detail provided data for large cities as well as a number of municipalities. The large sample size provided information on children, 0-14 years, adults, 15-64 years, seniors, 65+ years, and disabled persons residing in institutions. The types of disabilities have been extended to include psychiatric and learning disabilities.

Respondents in private households were asked questions designed to paint a portrait of the living conditions of Canada's disabled population. The questions asked of respondents in residential-care facilities were modified slightly to take account of the institutional environment.

Survey highlights. Approximately 3,316,870 Canadians (13.2% of the total population) experienced some level of disability according to *The Health and Activity Limitation Survey*, conducted in 1986-87; 247,275 were residing in health-related institutions and homes for senior citizens. These rates were slightly higher than those measured in the 1983-84 study, but reflected the change in geographic coverage as well as the changes in the types of disabilities.

As in the previous study, this survey showed a significant increase in disability rates in advancement through the life cycle. While the survey showed that 5.2% of children aged 0-14 had a disabling condition, in the population aged 15-64, 10.7% reported a disability. The prevalence increased to 45.5% for the population aged 65 and older. Disability rates are also higher for males up to the age of 64 and then higher for females aged 65 and older.

The approach used to identify disabled children was somewhat different than for adults. Parents or guardians were asked if the child used a technical aid, had a chronic health condition or experienced any limitation in the type or amount of activity they could undertake. There were 277,445 children under the age of 15 for whom a disabling condition was reported. This represented 5.2% of the Canadian population in this age group. The prevalence rate rose from 3.4% of those aged 0-4 to 6.4% among those aged 10-14. Over 99% of the children with disabilities lived in private households. Approximately 2,400 disabled children (0.9%), resided in health-related institutions. The majority (65.7%) of the children in institutions were 10 to 14 years of age.

Two-thirds of the disabled population aged 15 and older reported having more than one type of disability. The prevalence of multiple disabilities increased with age; in the disabled population aged 15-34, 45.5% reported having more than one disability — the total increased to 76% in the population 65 and older.

Approximately 45% of the population aged 65 and older reported some form of disability. Of the 1,221,995 disabled Canadian seniors, 1,026,915 resided in private households and 195,080 lived in institutions or homes for senior citizens. Twelve out of every 100 disabled males aged 65 and older resided in institutions or homes for senior citizens, compared to 19 out of every 100 females in the same age group. The percentage of disabled seniors residing in households decreased as age increased. The survey showed that in the age group 65 to 69, 96% of disabled seniors lived in households; by the age of 85 and older, this number fell to 57%. Male disabled seniors aged 85 and older were more likely to remain in a household: 66% of males compared to 54% of females. Over 8% of disabled seniors residing in households reported never participating in activities outside their home.

Approximately 88% of disabled seniors who participated in activities outside their homes reported that they visited friends and 84% went shopping at least once a month. Attending religious activities or doing volunteer work was

the third most frequent category with 50% of disabled seniors reporting these activities. Almost 25% of disabled seniors residing in households indicated that they were not satisfied with the amount of activity they participated in outside their residence; 172,295 persons in this group reported that they were physically unable to do more, while 49,240 stated that they could do more if they had help. High costs, location too far, and inadequate transportation were other reasons given for not being able to participate in more activities outside the home.

There were five types of institutions included in this survey. Seventy-nine percent of this institutionalized population resided in special-care homes and institutions for the elderly and the chronically ill. This category included most of the institutions and most of the institutionalized population. It should be noted that only 7.7% of disabled persons residing in institutions reported a single disability; 12.4% reported six types of disabilities, compared to 1.5% in the total population.

3.1.4 Specific health conditions

Mental disorders treated in psychiatric hospitals and general hospitals on an in-patient basis were responsible for approximately 12 million patient-days in 1984-85, with psychiatric hospitals accounting for 62% of these days, and general hospitals accounting for 38%. During the last decade, the number of patient-days for mental disorders has been increasing in general hospitals and decreasing in psychiatric hospitals.

General hospitals are primarily used for short-term intensive treatment of mental disorders, whereas psychiatric hospitals are used for both short- and long-term treatment. In psychiatric hospitals the median length of stay in 1984-85 for males and females was 26 days and 32 days, respectively, while in general hospitals it was 9 days and 11 days, respectively.

An examination of patient-days by diagnosis indicates that in psychiatric hospitals the largest utilization of patient-days was for cases diagnosed as schizophrenic, organic psychotic conditions and mental retardation, while in general hospitals it was for cases diagnosed as organic psychotic conditions, schizophrenic, and affective psychoses (Table 3.21).

Although the number of patient-days for mental disorders in general hospitals was less than the number of patient-days in psychiatric hospitals, the number of separations for mental disorders was greater in general hospitals than in psychiatric hospitals. In 1984-85 general hospitals reported 158,399 cases diagnosed as mentally ill, whereas

in psychiatric hospitals the number of cases reported was 36,185. In terms of the number of separations, the three most common diagnoses in general hospitals were neurotic disorders, affective psychoses and alcohol dependence syndrome; whereas in psychiatric hospitals the three most common diagnoses were schizophrenia, affective psychoses and personality disorders.

Heart disease caused almost one in three deaths in 1987. Over the past decade, death rates have been declining. The Canada Health Survey showed that about 800,000 Canadians had heart problems in 1979; over half were persons of working age. It was estimated that heart problems caused 300,000 persons to be restricted in their daily activities and over 100,000 persons to have disability days. Over 150,000 patients separated from hospital in 1984-85 were treated for heart disease.

Cancer accounted for more than one of every four deaths, in 1987; 35% of persons who died from cancer were in their working years or younger. Over the previous decade the death rate gradually increased due largely to a 50% increase in deaths from cancer of the respiratory system. Over 237,570 patients treated for active or suspected cancer were separated from hospital in 1984-85.

Respiratory diseases have had a relatively stable overall pattern with a small increase proportionate to the population increase. These diseases strike at all ages, though 78% of fatal illness occurs after age 65. The average hospital stay is seven to eight days.

Fatal cerebrovascular disease (stroke) is primarily a condition of old age, with only 15% of deaths occurring before age 65. More men than women are admitted to hospital, but the days of care provided in hospital for women suffering from stroke exceeds that for men by over 30%.

Accidents and violence. Accidental injuries, poisoning, suicides and assaults in 1984 resulted in 14,001 deaths and 366,417 persons discharged from general hospitals. Of the deaths, 70% were male and 30% were female, and of the persons discharged from hospitals, 57% were male and 43% female. However, the length of hospital stay was higher for females (16 days) than males (11 days), resulting in the utilization of 2,565,574 patient days by females and 2,275,221 patient days for males.

Alcohol-related problems are a major social and health issue in our society. The number of cases separated in 1984-85 from psychiatric hospitals and general hospitals with a primary diagnosis of alcohol dependence syndrome and alcoholic psychoses was 24,361 and accounted for 570,342

patient days. In 1972 there were 35,326 separations reported utilizing 794,891 patient days. Of the separations in 1984-85, 88% were male and 12% were female with a median age of 47 and 45, respectively.

Notifiable diseases are communicable diseases which physicians are required by law to report so that public health officials are aware of possible epidemics and may determine the effectiveness of public health programs such as immunization. The data represent cases and not individuals. The rate of reported cases of tuberculosis has continued to decline throughout the 1970s and 1980s; the rate of 7.7 per 100,000 in 1987 was less than one-half of the rate in 1971 (21.2). Measles vaccine has been in use in Canada since the mid-1960s, and since the early 1980s all provinces have given measles elimination a high priority through immunization and education programs. The rate of reported cases of measles declined sharply in the early 1980s, dropping from 57.7 per 100,000 in 1980 to 3.8 per 100,000 in 1983. The increase in the rate observed in 1986 indicates that there may be a number of children with inadequate immunization. (*Canada Diseases Weekly Report, Volume 13-6*, February 1987.) In the area of sexually transmitted disease, the rate of reported cases of gonococcal infections has declined since 1981, from 231.4 cases per 100,000 population, to 109.0 per 100,000 in 1987, while the rate for cases of syphilis remains about the same as that observed in the early 1980s. Since the early 1980s public health officials have become increasingly concerned about the incidence of Acquired Immunodeficiency Syndrome (AIDS). (National Advisory Committee on Aids, *Aids in Canada: What You Should Know*, Health and Welfare Canada, 1986.) AIDS is caused by a virus which attacks the body's immune system. Most persons with AIDS have been exposed to the virus through sexual contact with infected individuals; it has also occurred in a small number of people who received blood products or blood transfusions from donors infected with the virus. From the first case of AIDS diagnosed in Canada in 1979, the number has risen rapidly and totalled 2,118 cases by October 1988; one half of these persons with AIDS (54%) have died.

3.2 Canadian health system

3.2.1 Government responsibility

The only specific references to health matters in the distribution of legislative powers between the two levels of government under the Constitution Act, 1867 (formerly the British North America

Act, 1867) allocated to the federal government jurisdiction over quarantine and the establishment and maintenance of marine hospitals; provinces were assigned jurisdiction over the establishment, maintenance and management of hospitals (other than marine hospitals), asylums, charities and charitable institutions in and for the province. This latter assignment together with provincial power over municipal institutions has led to acceptance that health care services are primarily a provincial responsibility.

In addition to the powers of the federal Parliament to legislate in certain areas, the Constitution gave it wide powers to spend monies. This spending power enabled the federal Parliament to provide for payments to provinces and persons in fields where it had little or no regulatory authority: for example, hospital and medical care insurance programs, health resources, health grants programs, and fitness and amateur sport. It also enabled the federal government to undertake research and to provide information and consultative services.

At the federal level the Department of National Health and Welfare is the principal agency for health matters. Its main objectives are to maintain and improve the quality of life of all Canadians, including their physical, economic and social well-being. These objectives are pursued in conjunction with other federal agencies and with provincial and local governments. The department provides for the health needs of Indians, certain groups of immigrants and refugees, and residents of the Yukon. The department also provides diagnosis, treatment and preventive health services, public service health, occupational and environmental health, civil aviation medicine, health services in peacetime and wartime emergencies, quarantine and regulatory inspection of persons entering Canada, and immigration medical services.

Under the Canada Assistance Plan, the federal government pays 50% of the cost of various health and social services to persons in need beyond those covered under national hospital and medical care programs. Health benefits, under the Canada Assistance Plan, vary from province to province, and may include such services as eyeglasses, prosthetic appliances, dental services, prescribed drugs, home care services, and nursing home care.

Since the federal and provincial governments share responsibility for health, many co-ordinating structures have been established to ensure federal-provincial co-operation. Conferences of ministers and deputy ministers of health convene periodically to discuss all matters related to health, including the promotion, protection, maintenance

and restoration of health of Canadians. Advisory committees and the conferences of ministers and deputy ministers frequently establish sub-committees and working groups to deal with particular subjects.

3.2.2 Health insurance plans

In Canada, nationwide health insurance is achieved through a series of interlocking provincial and territorial plans, sharing common elements. The plans are designed to ensure that all residents of Canada have access, on a prepaid basis, to needed medical and hospital care. Provincial and territorial hospital and medical care insurance plans meet minimum federally-legislated criteria: comprehensiveness of coverage of insured services; universal population coverage; reasonable accessibility of services; portability of benefits; and non-profit plan administration.

Hospital insurance. The Hospital Insurance and Diagnostic Services Act, 1957, which came into effect in July 1958, was designed to make available to all eligible residents a wide range of hospital and diagnostic services at little or no direct cost to the patient. All provinces and territories have participated in the national program since 1961. Benefits include all acute, general, chronic and convalescent hospital services medically required. Excluded are hospitals for the mentally ill, tuberculosis sanatoria, and nursing homes or institutions which have a primary purpose of custodial care. Insured hospital services vary from province to province, but a fairly comprehensive range is provided throughout Canada. Additional benefits can be included in the plans at the province's discretion without affecting federal-provincial agreements.

During a temporary absence from residence, coverage is portable. Specific terms of availability and portability of hospital benefits are described in provisions of each provincial insurance plan. The plans in general stipulate a waiting period of three months when a person moves from one province to another. First-day coverage is generally provided for the newborn, immigrants, and certain other categories of persons without prior coverage in other provinces.

A health insurance supplementary fund exists for residents who have been unable to obtain coverage or who have lost coverage through no fault of their own.

Medical care insurance. The Medical Care Act, 1966-67 authorized the federal government to make payments to provinces and territories which operate medical care insurance plans meeting certain minimum criteria. Federal contributions

became payable in July 1968. By early 1972, all 10 provinces and both northern territories had met the federal criteria. Since then, virtually the entire eligible population has been insured for medically required services of physicians.

Under the Canada Health Act, direct charges to patients for physician and hospital services at the time of service are discouraged.

Provincial and territorial plans. Methods of organizing, financing and administering health insurance plans vary. In some provinces, hospital and medical care plans are administered directly by provincial departments of health. In others, the plans are under separate public agencies reporting directly to the responsible provincial minister. Some provinces have one plan administered by the department of health and the other by a public agency.

Until 1977, the federal government based its contributions directly on expenditures for services provided under the provincial hospital and medical care insurance plans. With the introduction of established programs financing legislation in April 1977, the federal contributions to the provinces were no longer tied directly to provincial spending but to rates of growth of Gross National Product and to population changes. Contributions take the form of a cash transfer plus a transfer of tax and associated equalization payments to the provinces. Provinces must continue to meet criteria under federal legislation to be eligible for funding. Per capita cash contributions are also made to the provinces toward the cost of certain extended health care services, such as nursing homes, and adult residential, ambulatory and home care services. Methods of administering and financing these programs and the provision of associated services are left to the provinces.

Each province is free to determine how its share of the cost will be financed. Most provinces finance their share from general revenues, while Ontario, Alberta and British Columbia impose premiums. Premium assistance is available in these provinces for certain categories of residents with limited income, and premium exemption is provided in Alberta and Ontario for residents 65 years of age or over.

Arrangements also vary across provinces for delivery of medical services and payment of physicians. Most physicians are paid on a fee-for-service basis. This accounts for about 95% of the cost of insured medical services nationally. Other arrangements include salary, sessional payments, contract services, capitation and monetary incentives to practice in medically underserved areas.

3.2.3 Health services

Canadians seeking health care have access to a comprehensive range of services from a broad spectrum of health care workers and organizations.

Institutional services. Hospital services are provided through a network of 1,224 general, teaching, pediatric, and allied specialty hospitals with an approved bed complement of 176,300 or approximately 7 beds per 1,000 of the Canadian population. Of these, nearly one-half are short-term medical and surgical beds, while about one-quarter are for extended care (including chronic care); over half of the hospitals have under 100 beds each.

Hospitals provide standard ward services and all approved and available diagnostic, treatment and rehabilitation services. Thus, in-patients have access at no charge to the full range of services available in hospitals, according to accreditation standards, and appropriate to the hospital's level of specialization and range of programs.

General health services. Medical services to Canadian residents are provided by approximately 55,300 physicians (including interns and residents), or approximately one physician for every 467 persons. Physician services, under the provincial health insurance plans, include the full range of required medical and surgical services. Community services for ambulatory care as well as necessary medical follow-up services for patients discharged from hospitals are available through personal physicians.

For non-hospitalized patients, hospitals in all provinces normally provide medically necessary diagnostic services, physiotherapy, occupational therapy, social work counselling, emergency services, and clinical out-patient services. Out-patient services covered by the plans may also include, depending on the availability at the particular hospital and provincial approval, speech therapy and audiological services, psychiatric therapy, psychiatric day care and/or night care, diabetic day care, day care surgery, cancer therapy, dietetic counselling, inhalation therapy, ambulance services, hemodialysis, medical orthoptics, electrocardiograms, electroencephalograms, and many other ambulatory services.

In addition to benefits provided through provincial health insurance plans, many provinces provide additional benefits at no charge to eligible patients. These benefits are frequently provided on a restricted basis, such as age-restricted dental services for children, or chiropractic services to a prescribed maximum. Additional benefits under some provincial plans include the services of

dentists, optometrists, psychologists, chiropractors, podiatrists, naturopath physicians, osteopaths as well as home care services, drugs, and general preventive medical services. In order to be eligible for health insurance coverage of these additional benefits, patients must normally be referred by a medical doctor. Canadians may also purchase, on an individual fee-for-service basis, health services or other alternate therapies not available through their particular provincial plan.

Health service networks. Smaller hospitals typically provide the core hospital services of medical/surgical, obstetrics, pediatrics, and possibly intensive care and psychiatric services. Secondary and tertiary referral hospitals, providing a broader range of specialized and intensive services, are most frequently located in larger population centres. Hospitals providing services requiring close affiliation with research and advanced technology are generally affiliated with university health sciences centres. Health professionals similarly extend primary health care services in Canadian communities, with additional health specialties made available as required through collaborative regional referral plans under provincial co-ordination and occasionally involving interprovincial co-ordination for the more specialized or rare treatment requirements.

Health care services are extended to Canadians in remote areas through a diverse network of decentralized services including, for example, regional flying ambulance services; in some areas flying health teams consisting of a variety of specially trained health professionals; training programs for community health aides; and extensive health promotion, accident prevention and health education programs. These decentralized community and outreach services are integrated with networks of basic and specialized medical and hospital services, organized regionally under provincial co-ordination.

Primary health care and evolving patterns of health services. Changes in morbidity and mortality patterns worldwide, along with changing aspirations and values relating to personal, social and environmental well-being, have highlighted the importance of well-being and the quality of life, health promotion and disease prevention. Thus, concerns for health and well-being now focus on responsible health behaviours, safer environments, and on patient awareness and participation in health matters, particularly in health care choices. Primary health care at the community level embraces a comprehensive range of public, voluntary, professional and consumer health organizations. These new partners in health are dedicated to such

concerns as health education, early detection, accident prevention, mental health, reproductive health, palliative care, women's health, occupational health, environmental health, neglect and family violence, the health of immigrant and refugee groups and many others.

Standards. The provincial and territorial responsibility for health sciences and educational programs, certification of health personnel, allocation and management of health care resources and delivery of health care services creates a decentralized health care delivery system at the provincial and territorial level. This decentralized responsibility requires national networking, co-ordination, information-sharing, as well as joint planning and standard-setting, which are developed under the aegis of the federal and provincial committee structure and the professional associations.

To improve quality of care across Canada and establish national frameworks of common goals, policies and procedures, guidelines are developed for institutional and other professional health services, and clinical guidelines for various disciplines. These guidelines address a wide range of health concerns including infection control, vital organ transplantation, periodic health examinations, newborn care, dental hygiene, occupational therapy and physiotherapy.

3.2.4 Health protection

Federal and provincial programs protect the public against unsafe foods, drugs, cosmetics, and medical and radiation-emitting devices, against harmful microbiological agents, technological and social environments, against environmental pollutants and contaminants, and against fraudulent drugs and devices.

Food safety, cleanliness and nutritional quality standards are developed through laboratory research and evaluation of data produced by private and public sectors, and international sources. Standards are maintained by inspection and analysis of foods of both domestic and imported origins. Regulations prescribe maximum levels for residues of agricultural chemicals in foods and use of food additives. Both are subject to pre-market evaluation before they can be used in food sold in Canada.

Drugs. On the principle that Canadians should have access to drugs that are both safe and effective, new drugs are cleared for marketing and post-marketing surveillance is maintained. Manufacturers of new drugs with unknown properties are required by law to submit evidence of the safety

and effectiveness of their products, including information about therapeutic properties and side effects.

Environmental health. Responsibilities include studying adverse effects on human health of the chemical and physical environment, investigating the health effects of tobacco smoke, and ensuring the safety, effectiveness and non-fraudulent nature of radiation-emitting and medical devices. Health hazard assessments are developed for work and home environments, pesticides, household products, air and water. Research is conducted on radiation hazards, and adverse effects of environmental chemicals.

Disease control. A national laboratory centre in Health and Welfare Canada plays a central role in combatting diseases. Communicable disease outbreak investigation and provision of laboratory diagnostic services enable the rapid detection and control of infections. Improved diagnostic procedures, unique reference reagents, quality assurance measures and training, enhance the capabilities of the provincial laboratories to participate in a national public health network for the diagnosis of infectious agents. On-going surveillance for seasonal influenza, omnipresent sexually transmitted diseases, newly emerging conditions or non-communicable diseases permit the detection of changing disease patterns and identification of risk factors. From these collective activities, national and international strategies evolve for disease prevention and control.

AIDS (Acquired Immunodeficiency Syndrome). The Federal Centre for AIDS (FCA) co-ordinates all governmental activities with respect to the promotion of public education programs, and preventive and social health activities. Other FCA activities include: the promotion of clinical trials of drugs and vaccines; stimulation and encouragement of epidemiological studies, together with the maintenance and improvement of national surveillance; and co-ordination of funding research and community-based support groups. The establishment and maintenance of liaison with all governmental and non-governmental organizations and collaboration with the World Health Organization (WHO) and other international agencies, together with liaison with other national organizations, completes the spectrum of overall activities. The FCA maintains the National Retrovirus Centre, a WHO collaborating centre, which includes the capability to culture peripheral blood lymphocytes for the detection of HIV (Human Immunodeficiency Virus). Reference services for ELISA (Enzyme-linked Immunosorbent

Assay) and confirmatory testing, proficiency testing and quality control at the national level, the evaluation of diagnostic kits and commercially produced reagents, and an extensive training program are also offered.

3.2.5 Public health and community health

Health departments, in co-operation with regional and local health authorities, administer such services as environmental sanitation, communicable disease control, maternal and child health, school health, nutrition, dental health, occupational health, public health laboratories and vital statistics. Most provinces have delegated certain responsibilities to health units in rural regions and to municipal health departments in urban centres. Several provinces provide services directly to their thinly populated northern areas.

Maternal and child health. Consultant services of health departments co-operate with the public health nursing services. Maternal and child health services also undertake studies and help train nursing personnel. At the local level, public health nurses provide services to mothers, the newborn and children through clinics, home and hospital visits, and school health services.

Nutrition and health education. Health departments and some municipal or regional health offices employ nutrition consultants and/or health educators to extend guidance to health and welfare agencies, schools, nursing homes, various community service agencies and other institutions. They provide diet counselling to selected patient groups such as diabetics, and conduct nutritional surveys and other research. Most provincial health departments have a division or unit of health education. Many educational activities are directed to accident prevention, health promotion and to changing habits harmful to health, such as smoking and the excessive use of alcohol and other drugs.

Dental health. Public health programs have been largely preventive, but emphasis is now being given to dental treatment. Dental clinics conducted by local health services are generally restricted to pre-school and younger school-age groups. A number of provinces send dental teams to remote areas. All provinces have dental care schemes of varying coverage for welfare recipients. Other dental health programs are directed to training dentists, dental hygienists, nurses, therapists and assistants, conducting dental surveys and extending water fluoridation.

Communicable disease control. In larger provinces, health departments have divisions of communicable disease control. In others, this function

is combined with one or more community health services. Local health authorities organize public clinics for immunization against diphtheria, tetanus, poliomyelitis, whooping cough, rubella and measles.

Public health laboratories. Provinces maintain central public health laboratories and have branch laboratories to assist local health agencies and the medical profession in protection of community health and control of infectious diseases. Public health bacteriology (testing of milk, water and food), diagnostic bacteriology and pathology are the principal functions of the laboratory service, together with medical testing for physicians and hospitals.

Rehabilitation and home care. Rehabilitation services are provided by public and voluntary agencies in several types of institutions, including hospitals, separate in-patient facilities, worker compensation board centres, and out-patient centres. Financing is from various federal, provincial and voluntary agency sources. Every province includes some institution-based services under hospital and medical care insurance. In some provinces coverage is extended to the supply and fitting of certain prosthetic and assistive devices.

Home care has developed in a variety of ways. Some programs are oriented to specific disease categories. Some are attached to specific hospitals or community centres. Others are integral parts of comprehensive health care delivery systems. The range of services varies from nursing services alone to a complete array of health and social services. Some programs concentrate on patients requiring short-term active treatment. Others treat convalescent or chronic patients. The objectives are the reduction of institutional costs and length of stay, and continuity of care and provision of co-ordinated health care services to patients for whom home care is the most appropriate level of care.

Most home care programs have two features: centralized control and co-ordinated services to meet the changing needs of the patient. In some provinces the departments of health play an active role in financing and administration of home care programs. In others, local agencies, municipalities and hospitals assume major responsibility for home care.

Special schools or classes for various groups of disabled children are usually operated by school boards. Most schools for the deaf and for the blind are residential schools operated by provincial governments.

A program for the vocational rehabilitation of disabled persons, initiated in 1952, has been administered by Health and Welfare Canada since

April 1973. The federal government shares the costs incurred by the provinces in providing comprehensive services for vocational rehabilitation of physically and mentally disabled persons. Services include social and vocational assessment, counselling, training, maintenance allowances, provision of tools, books and other equipment, remedial and restorative treatments, and provision of prosthetic and orthotic appliances, wheelchairs, and other mobility aids.

3.2.6 Health promotion and physical activity

Health promotion is the process of enabling people to increase control over and to improve their health. It is an approach to health which recognizes the importance of quality of life as a dimension to everyday living. Health promotion is viewed as a new kind of public health in which importance is given to achieving, maintaining and improving health. Health promotion includes three basic mechanisms; self-care, mutual aid and the creation of healthy environments. All sectors of society have a role to play in preserving and enhancing the health of Canadians. For health promotion this role is seen to include fostering public participation in order that people assert greater control over factors affecting their lives; strengthening community health services; and co-ordinating the health aspects of public policies.

Health promotion is increasingly gaining merit as an approach which responds effectively to current and future health concerns.

Areas where health promotion efforts are presently under way include family health; adolescent sexuality; nutrition; impaired driving; mental health; alcohol, tobacco and drug use; and social support for seniors. Health promotion is taking place formally or informally in a variety of settings including health and social services, schools, training centres, the workplace, homes, neighbourhoods and community centres.

Physical activity. A Canada fitness survey, undertaken in 1981, revealed that 56% of Canadians aged 10 and over are physically active. The survey also revealed that, despite increased participation, Canadians are still not as fit as they could be: only 25% are active enough to potentially benefit their cardiovascular health. A longitudinal follow-up survey was launched in 1988.

Fitness and Amateur Sport Canada seeks to increase awareness of the importance of fitness and encourage greater participation in regular physical activity of Canadians including target groups such as disabled persons, youth, employees and older adults. This is accomplished via numerous programs and activities which could

be grouped under four key areas: promotion — co-ordinating Canada's Fitweek, formerly the National Physical Activity Week, and supporting the PARTICIPaction Program; leadership — developing guidelines for the training of fitness leaders and programs to train management volunteers; participation — increasing the number of opportunities for Canadians to participate in physical activity and encouraging the provision of adopted activity opportunities for certain target groups; and research — facilitating the conduct of research projects and national surveys and the dissemination of results. These activities are carried out in conjunction with or on the basis of liaison and co-ordination between the various levels of government, national associations, private sector partners, volunteers and practitioners in the field.

3.2.7 Voluntary agencies

Voluntary agencies are very much involved in the health field. Health departments in Canada recognize and support the intrinsic worth of voluntary action in developing and providing services to promote health and well-being. Historically, voluntary groups have played a major role in promoting public awareness and action leading to the development of Canadian health systems and social services. The voluntary sector, with its grassroots involvement, is in a position to be aware of emerging problems, evolve innovative responses and mobilize rapidly to meet perceived human needs. Thus the work of the voluntary sector is complementary to government efforts. The annual value of volunteer services is estimated at about \$1 billion in the health and social services sector. In 1988-89, Health and Welfare Canada provided sustaining grants totalling \$2.9 million to 50 national voluntary organizations to assist in the operation of their national offices and in carrying out their national responsibilities. In addition, research and project contributions are made toward a wide variety of activities of an innovative or demonstrative nature.

3.2.8 Research and planning

Total expenditures for health science research and related scientific activities in Canada in 1985 were estimated at \$357 million. Federal contributions were estimated at \$176 million.

Responsibility for funding scientific activities is shared among the federal government, private non-profit organizations, private industry and provincial governments. Basic and applied biomedical research is funded primarily by the Medical Research Council of Canada, a variety of non-profit organizations, such as the Cana-

dian Cancer Society, and several provincial research-funding programs. Most of this research is performed in universities and affiliated teaching hospitals. Applied health research, including the development of health care delivery systems, is funded by Health and Welfare Canada and by other organizations, both provincial and private. The provinces not only provide some funds for the direct costs of activities carried out in universities and hospitals but also, through operating grants, provide for indirect costs including the salaries of principal investigators. Related activities include the training of research scientists, scientific data collection, information dissemination, economic and feasibility studies and testing and standardization.

In federal laboratories, work is concerned with standards and regulations to safeguard the quality and safety of foods, cosmetics, pesticides, drinking water and air, and the safety and effectiveness of drugs, radiation-emitting and medical devices. Surveillance is maintained over chronic and infectious diseases; factors affecting their diagnosis and containment are investigated. In universities, most investigations concern physiological and biochemical bases of health and disease. In hospitals, diseases and disabilities are investigated; treatments (both medical and surgical) are developed and tested. In industry, new pharmaceuticals and medical devices are developed. New technologies are developed and tested ranging from hardware, such as medical devices, to strategies for the management of certain medical conditions, such as provision of special care units. Health concerns include: the improvement of lifestyles and self-management of health; reproductive health; occupational health; mental health; and the special health problems of particular population groups, such as the elderly, northern residents, native peoples and the disabled.

Most federal grants supporting health science research in universities and hospitals are channelled through the Medical Research Council. It provides grants-in-aid of operating and equipment requirements for research projects and direct support for investigators and research trainees. It offers incentives for research both in productive fields where major contributions may be expected and in fields or regions where research is not adequately developed. Support is given for meetings, international scientific activities and exchange of scientists.

The Council also funds collaborative research projects with industry. The budget of the Council was \$170.5 million for 1987-88, up \$6.5 million

from the fiscal year 1986-87; the Council funded 2,402 grants and 1,530 awards.

The National Health Research and Development Program provided \$21.4 million for health research and related scientific activities in 1987-88. There were 663 projects supported including studies on: the availability, accessibility and quality of health care and the development of models for more cost-effective delivery of health services; investigations into illness prevention and the promotion of healthy lifestyles and behaviour patterns; assessments of genetic, socio-cultural and environmental health risks; research dealing with the health of native peoples; habitation and rehabilitation; and population immune status and communicable disease control. The program also administered special funds for the national AIDS program, and special funds in the area of child sexual abuse and the national drug strategy. Training awards assisted 80 students at the masters and doctoral levels and 61 established health research scientists received career awards.

3.3 Health workers and facilities

Canadians are served by a system of hospital and medical care complemented by a broad range of other health services. In 1987, health workers included 55,275 physicians, 241,955 registered nurses, 13,503 active licensed dentists and a large pool of other health professionals in such activities as diagnosis, treatment, rehabilitation, public health and health promotion.

Physicians. The number of active civilian physicians in Canada, including interns and residents, increased at a rate substantially exceeding population growth from 1975 to 1987 (Table 3.25). The number of persons per physician was 585 in 1975 and 467 in 1987. In the 10 provinces the ratio ranged from 433:1 in Quebec to 736:1 in New Brunswick. Excluding interns and residents, the 1987 population-per-physician ratio ranged from 501:1 in British Columbia to 800:1 in New Brunswick, and stood at 542:1 in Canada as a whole. The increase in the number of physicians was largely due to an inflow of graduates of Canadian medical schools averaging more than 1,770 per year during the 10 years ending in 1987.

In 1985, 52.1% of active civilian physicians, excluding interns and residents, were general practitioners and family physicians. The remaining 47.9% were certified specialists. The proportion of certified specialists held steady at about 49% from 1975 to 1984 and eased downward over the next three years.

Dentists. The number of active dentists increased 34.1% from 1977 to 1987, substantially exceeding the population increase during the same period (Table 3.26). Canada had one dentist per 2,619 people in 1975. The ratio was 1:1,910 in 1987.

Nurses. Nurses represent about two-thirds of all health human resources in Canada and are an integral part of the health care system. Historically, nurses have been predominantly female (99.1% in 1970), but there has since been an increase in the number of male nurses; the percentage of female nurses had decreased to 97.4% by 1987. About 33% of nurses worked part-time (less than 35 hours per week) in 1987.

Pharmacists. The number of licensed pharmacists increased from 13,872 in 1975 to 16,348 in 1987 (Table 3.29). There were 689 graduates of pharmacy schools in 1987. Women graduating outnumbered men; 66% of all new graduates of pharmacy schools in 1987 were women.

Optometrists. In 1986, there were 2,474 active optometrists in Canada or one per 10,308 persons. This was an increase from 13,128 persons per optometrist in 1976. (Table 3.27).

Facilities. In 1986, there were 1,048 public, private and federal hospitals operating and 5,607 special care facilities such as nursing homes and homes for the elderly. The hospital bed-to-population ratio has remained stable at about 7 beds per 1,000 population over the last decade.

3.4 Use of health services

Physician services. In 1985-86, medical care insurance plans in the 10 provinces made fee-for-service payments for 154 million visit services (office, hospital and home). In addition, they paid for 1.8 million major and 2.6 million minor surgical procedures. Of a further 110 million services, over 75 million were radiology and laboratory services, while the remaining 35 million consisted of obstetrical, anaesthetic, surgical assistance, and assorted other diagnostic and therapeutic services. The above total of about 269 million services did not include out-of-province payments made by provincial medical care insurance plans; services provided to residents of the two northern territories; and millions of services provided by physicians under other arrangements, such as services for which payments were made on a salary or other non-fee basis; services that were the responsibility of Workers' Compensation Boards; uninsured services; and services provided to uninsured persons.

Of the total fee-for-service payments made by provincial medical care insurance plans, about 40%

were made for services provided to male patients. Fee payments per insured person aged 65 and over were just over twice as high as payments made per person under age 65.

Dental services. Canadians spent about \$2,200 million on dental care in 1985, slightly less than 6% of total health expenditures.

A significant health care development since 1970 has been the growth of dental insurance. Approximately 9.2 million Canadians, 36.2% of the population, were insured by third-party payment schemes (apart from social assistance) in 1985.

Hospital services. Patients spent over 52 million days in public hospitals in the 1986-87 fiscal year, including more than 8 million days in mental institutions. While the number of days spent in general and allied special hospitals had increased each year from 1978, the number of days spent in mental hospitals for the same period decreased. This was the result of extensive changes in the treatment locations for many mental patients and not a decrease in the prevalence of mental disorders.

During the 1970s there was a change in emphasis toward integrating mental patients into the community instead of isolating them in institutions. This trend is reflected through shorter hospital stays, follow-up programs of out-patient visits to psychiatric clinics and special care facilities, and drug therapy.

The rate of patient-days in hospitals varied by sex and age. In the child-bearing years of the 15-24 and 25-44 age groups, the rate for women was almost double that for men, in 1984-85. In the 45- to 64-year-old group, men had the higher rates, most likely because men suffer more heart ailments than women. After the age of 65, both men and women had a high rate of days of hospital care.

Length of stay in hospital also varied by age. Up to 44 years of age, people stayed in hospital for an average of 6.1 days in 1984-85. For the 45- to 64-year-old group, the average stay was 11 days in 1984-85. Patients 65 years old or more averaged 23 days in hospital at a time.

3.5 Financing and expenditures

The overall cost of health in Canada, including expenditures by the private sector and by all levels of government, reached nearly \$39.8 billion in the calendar year 1985 (preliminary data). That figure was up 6.3% from 1984, following annual increases of 11.3% in 1983 and 7.8% in 1984. The 1985 total was about 19 times the amount in 1960. On a per-person basis, the 1985 figure was \$1,543, or \$78 more than the year before and nearly triple the 1975 average.

Before 1970, health expenditures took an increasing proportion of the Gross National Product (GNP). From 5.5% in 1960, this share rose to 7.1% in 1970; it oscillated between 6.8% and 7.4% for the next decade. A sharp increase to 8.5% in 1982 was more a result of a relatively small increase in the GNP than of an unusually large increase in health expenditures. It has varied only slightly since 1982.

The distribution of total health expenditures by type of service has remained relatively unchanged during the 1975 to 1985 period. Institutional and related services accounted for about 55% in 1975 and fell gradually to 53% a decade later; professional services took 22% throughout. Drugs and appliances rose slowly from 11% in 1975 to 12% in 1985, while the category "Other health expenses", which includes public health, capital expenditure, research, and the cost of insuring services, accounted for 12% or 13% every year.

The development across Canada of governmental plans for the provision of health care on an insured basis (hospital care; physician services; and, under individual provincial governments, various other categories of health needs such as dental care and prescription drugs) has made the governments' overall share of health costs increase substantially. From 42 cents on the dollar in 1960 (when hospital insurance was already largely in place), the share rose to 76 cents in 1975. It remained within one cent of that in each year of the succeeding decade.

3.6 International health

Through the Department of National Health and Welfare, Canada is involved in the work of the Commonwealth ministers of health, the Pan-American Health Organization, the Organization for Economic Co-operation and Development, the World Health Organization, other United Nations specialized agencies and other intergovernmental organizations whose programs have a substantial health component. The department also takes part in bilateral exchanges with other countries on a variety of health issues.

Each year Canadian experts in public health and in the health sciences undertake assignments abroad as special advisers or consultants at the request of the World Health Organization or one of the other agencies; they also work closely with the Canadian International Development Agency on international health matters.

Health and Welfare Canada enforces regulations under agreements between Canada and other countries, and is the custodian and distributor of

biological standards. It also has certain duties in connection with international conventions in the health field. Provincial departments and agencies

are involved through the federal-provincial Advisory Committee on International Health Affairs.

Sources

Information Systems Directorate, Policy, Communications and Information Branch, Health and Welfare Canada; Health Division, Social Statistics Field, Statistics Canada.

FOR FURTHER READING

Selected publications from Statistics Canada

- Hospital Morbidity, annual. 82-206
- Cancer in Canada, annual. 82-207. Discontinued, last issue 1983.
- Tuberculosis Statistics, Morbidity and Mortality, annual. 82-212. Discontinued, last issue 1986.
- Cardiovascular Disease in Canada, 181 p., 1986. 82-544
- Canadian Youth: Perspectives on their Health, 91 p., 1985. 82-545
- Therapeutic Abortions, Canada, 10 p., 1983. 82-546
- Report of the Canadian Health and Disability Survey, 1983-1984, 108 p., 1986. 82-555
- Mental Health Statistics, annual. 83-204. Discontinued, last issue 1984.
- Hospital Annual Statistics, annual. 83-232. Discontinued, last issue 1984-85.
- Annual Return of Hospitals, Hospital Indicators, annual. 83-233
- Causes of Death, Vital Statistics, Volume IV, annual. 84-203. Discontinued, last issue 1986.
- Mortality, Summary List of Causes, Vital Statistics, Volume III, annual. 84-206. Discontinued, last issue 1986.

More information about these publications is available from Statistics Canada. See Appendix F for a complete list of Statistics Canada offices.

TABLES

.. not available

... not appropriate or not applicable

— nil or zero

-- too small to be expressed

e estimate

p preliminary

r revised

certain tables may not add due to rounding

3.1 Life expectancy, Canada

Year	Males				Females			
	At birth	20 years	40 years	60 years	At birth	20 years	40 years	60 years
1931	60.00	49.05	31.98	16.29	62.10	49.76	33.02	17.15
1941	62.96	49.57	31.87	16.06	66.30	51.76	33.99	17.62
1951	66.33	50.76	32.45	16.49	70.83	54.41	35.63	18.64
1956	67.61	51.19	32.74	16.54	72.92	55.80	36.69	19.34
1961	68.35	51.51	32.96	16.73	74.17	56.65	37.45	19.90
1966	68.75	51.50	33.01	16.81	75.18	57.37	38.15	20.58
1971	69.34	51.71	33.22	16.95	76.36	58.18	38.99	21.39
1976	70.19	52.09	33.59	17.23	77.48	58.95	39.67	21.96
1981	71.88	53.39	34.72	17.96	78.98	60.08	40.73	22.85
1983-85	72.92	54.20	35.43	18.39	79.83	60.81	41.38	23.36
Gains								
1931-76	10.19	3.04	1.61	0.94	15.38	9.19	6.65	4.81
1931-85	12.92	5.15	3.45	2.10	17.73	11.05	8.36	6.21

3.2 Life expectancy at birth, selected countries

Country	Year	Males (M) years	Females (F) years	Difference F-M
Japan	1984	74.54	80.18	5.64
Sweden	1983	73.62	79.61	5.99
Switzerland	1981-82	72.70	79.60	6.90
Netherlands	1982-83	72.75	79.48	6.73
Denmark	1982-83	71.50	77.50	6.00
France	1981	70.41	78.47	8.06
Canada	1983-85	72.92	79.83	6.91
Spain	1975	70.41	76.21	5.80
Australia	1983	72.09	78.72	6.63
Israel	1983	72.52	75.92	3.40
United States	1983	71.00	78.30	7.30
England and Wales	1981-83	71.34	77.35	6.01
Cuba	1977-78	71.45	74.91	3.46
Italy	1974-77	69.69	75.91	6.22
Poland	1983	67.04	75.16	8.12
Portugal	1975	65.09	72.86	7.77

3.3 Infant mortality rate per 1,000 live births, Canada, 1921-86

Year	Male	Female	Both sexes	Year	Male	Female	Both sexes
1921	98.2	77.4	102.1	1940	63.6	51.1	57.6
1922	97.3	75.9	101.6	1941	68.3	53.0	61.1
1923	98.2	77.4	103.4	1942	61.1	48.8	55.4
1924	86.1	70.9	93.9	1943	60.7	48.7	55.0
1925	86.7	70.0	92.7	1944	62.0	49.9	56.3
1926	113.0	90.0	101.6	1945	57.5	46.6	52.5
1927	104.7	83.8	94.5	1946	53.0	42.0	47.8
1928	100.0	80.3	90.2	1947	51.8	40.0	46.2
1929	102.9	82.5	92.9	1948	49.2	38.9	44.4
1930	99.9	81.0	90.6	1949	48.2	38.1	43.4
1931	95.7	76.0	86.0	1950	46.2	36.5	41.5
1932	82.9	65.9	74.6	1951	42.7	34.0	38.5
1933	82.7	65.1	74.1	1952	42.5	33.6	38.2
1934	81.5	63.7	72.7	1953	39.8	31.0	35.6
1935	81.4	63.2	72.5	1954	35.8	27.9	31.9
1936	74.5	60.3	67.7	1955	35.0	27.5	31.3
1937	85.7	68.4	77.4	1956	35.0	28.7	31.9
1938	71.5	56.5	64.2	1957	34.5	27.2	30.9
1939	69.0	53.3	61.4	1958	33.7	26.4	30.2

3.3 Infant mortality rate per 1,000 live births, Canada, 1921-86 (concluded)

Year	Male	Female	Both sexes	Year	Male	Female	Both sexes
1959	31.8	24.7	28.4	1973	17.4	13.6	15.5
1960	30.8	23.7	27.3	1974	16.6	13.4	15.0
1961	30.5	23.7	27.2	1975	15.9	12.6	14.3
1962	30.6	24.3	27.6	1976	15.0	11.9	13.5
1963	29.6	22.9	26.3	1977	13.5	11.2	12.4
1964	27.8	21.4	24.7	1978	13.3	10.5	12.0
1965	26.2	20.8	23.6	1979	12.2	9.5	10.9
1966	25.8	20.2	23.1	1980	11.6	9.2	10.4
1967	24.2	19.6	22.0	1981	10.8	7.8	9.6
1968	22.9	18.6	20.8	1982	10.3	7.4	9.1
1969	21.7	16.9	19.3	1983	9.3	7.7	8.5
1970	21.2	16.3	18.8	1984	8.9	7.2	8.1
1971	19.9	15.1	17.5	1985	8.7	7.1	7.9
1972	19.1	15.0	17.1	1986	8.7	7.0	7.9

3.4 Infant deaths and stillbirths, Canada

Type	Number						Rate ¹					
	1981	1982	1983	1984	1985	1986	1981	1982	1983	1984	1985	1986
Infant deaths (less than 1 year)	3,562	3,401	3,182	3,058	2,982	2,938	9.6	9.1	8.5	8.1	7.9	7.9
Neonatal deaths (less than 28 days)	2,037	1,873	1,740	1,629	1,641	1,577	5.4	5.0	4.6	4.3	4.4	4.2
7 days to 27 days	322	346	300	313	313	332	0.9	0.9	0.8	0.8	0.8	0.9
Total	2,359	2,219	2,040	1,942	1,954	1,909	6.4	5.9	5.5	5.2	5.2	5.1
Post-neonatal deaths (28 days to 1 year)	1,203	1,166	1,142	1,116	1,028	1,029	3.2	3.1	3.0	3.0	2.7	2.8
Stillbirths (28+ weeks gestation)	1,972	1,923	1,828	1,678	1,629	1,574	5.3	5.2	4.9	4.4	4.3	4.2
Perinatal deaths (stillbirths plus deaths at less than 7 days) ¹	4,009	3,796	3,568	3,307	3,270	3,151	10.7	10.1	9.5	8.7	8.7	8.4

¹ Perinatal rates per 1,000 live- and still-born infants; all other rates per 1,000 live births.

3.5 Five leading causes of death¹, by age group and sex, 1986

Cause of death	Total		Male		Female	
	No.	Rate ²	No.	Rate ²	No.	Rate ²
All ages						
Diseases of the heart	58,816	232.3	32,646	261.4	26,170	204.0
Cancer	47,448	187.4	26,184	209.6	21,264	165.8
Respiratory disease	14,931	59.0	8,847	70.8	6,084	47.4
Cerebrovascular disease	14,029	55.4	5,885	47.2	8,144	63.5
All accidents	13,741	54.3	9,532	76.3	4,209	32.8
Under 1 year ³						
Causes of perinatal mortality	1,214	325.6	704	368.6	510	280.4
Congenital anomalies	924	247.8	500	261.8	424	233.1
Sudden death, cause unknown	373	100.0	222	116.2	151	83.0
All accidents	84	22.5	45	23.6	39	21.4
Respiratory disease	70	18.8	42	22.0	28	15.4

3.5 Five leading causes of death¹, by age group and sex, 1986 (concluded)

Cause of death	Total		Male		Female	
	No.	Rate ²	No.	Rate ²	No.	Rate ²
1 - 4 years						
All accidents	266	18.4	167	22.5	99	14.0
congenital anomalies	114	7.9	57	7.7	57	8.1
Cancer	76	5.2	39	5.2	37	5.2
Respiratory disease	38	2.6	20	2.7	18	2.6
Homicide	32	2.2	20	2.7	12	1.7
5 - 19 years						
All accidents	1,516	27.5	1,116	39.5	400	14.9
Suicide	266	4.8	219	7.8	47	1.8
Cancer	219	4.0	126	4.5	93	3.5
Congenital anomalies	204	3.7	104	3.7	100	3.7
Homicide	60	1.1	37	1.3	23	0.8
20 - 44 years						
All accidents	5,724	54.9	4,517	86.8	1,207	23.1
Cancer	2,294	22.0	1,041	20.0	1,253	24.0
Suicide	2,011	19.3	1,610	30.9	401	7.7
Diseases of the heart	1,093	10.5	886	17.0	207	4.0
Homicide	291	2.8	193	3.7	98	1.9
45 - 64 years						
Cancer	14,415	295.8	8,011	333.7	6,404	258.9
Diseases of the heart	10,304	211.4	7,868	327.8	2,436	98.5
All accidents	2,673	54.8	1,912	79.6	761	30.8
Respiratory disease	1,497	30.7	971	40.4	526	21.3
Cerebrovascular disease	1,448	29.7	788	32.8	660	26.7
65 years and over						
Diseases of the heart	47,343	1,755.1	23,848	2,104.5	23,495	1,501.9
Cancer	30,325	1,124.2	16,958	1,487.6	13,467	860.9
Respiratory disease	13,019	482.6	7,635	673.8	5,384	344.2
Cerebrovascular disease	12,255	454.3	4,932	435.2	7,323	468.1
All accidents	3,478	128.9	1,775	156.6	1,703	108.9

¹ Leading causes of death for both sexes but not necessarily the leading causes for male or female.

² Per 100,000 population.

³ Per 100,000 live births.

3.6 Potential years of life lost (PYLL) by selected causes and sex, 1986

Cause of death	PYLL between 0 and 75 years				Deaths between 0 and 75 years (both sexes)	
	Males No.	Females No.	Total No.	%	No.	%
All malignant neoplasms	229,662	199,313	428,975	25.1	31,310	32.6
Diseases of the heart	216,706	73,442	290,148	17.0	26,346	27.4
Motor vehicle accidents	117,704	42,241	159,945	9.4	3,831	4.0
All other accidents	94,782	28,749	123,531	7.2	3,633	3.8
Suicide	97,626	25,299	122,925	7.2	3,491	3.6
Congenital anomalies	47,976	41,704	89,680	5.3	1,348	1.4
Causes of perinatal mortality (excluding stillbirths)	52,737	38,065	90,802	5.3	1,219	1.3
Respiratory disease	37,931	22,670	60,601	3.5	5,196	5.4
Cerebrovascular disease	26,374	23,257	49,631	2.9	4,404	4.6
All other causes	181,161	109,913	291,074	17.0	15,322	15.9
Total	1,102,659	604,653	1,707,312	100.0	96,100	100.0

3.7 Standardized¹ death rates², by selected causes and sex, 1975 and 1986

Cause of death	Males			Females		
	1975	1986	% change	1975	1986	% change
All malignant neoplasms	165.3	176.2	6.6	124.6	131.3	5.4
Lung cancer	47.1	57.3	21.6	10.4	20.8	100.0
Breast cancer	—	0.2	—	26.2	27.6	5.3
Diseases of the heart	296.9	219.6	-26.0	186.2	145.4	-21.9
Cerebrovascular disease	67.5	39.5	-41.5	71.4	44.9	-37.1
Respiratory disease	65.8	59.5	-9.6	33.2	33.8	1.8
All accidents	76.2	69.9	-8.3	31.6	28.4	-10.1
Motor vehicle accidents	36.6	22.2	-39.4	14.0	8.9	-36.4
Total, all causes	849.3	690.1	-18.8	577.6	486.9	-15.7

¹ Age standardized to the 1971 Canadian population.

² Per 100,000 population.

3.8 Rates of selected notifiable diseases, selected years, per 100,000 population

Disease	1971	1976	1981	1982	1983	1984	1985	1986
Tuberculosis	21.2	13.7	10.4	10.0	9.5	9.4	8.5	8.1
Hepatitis	40.7	18.1	9.0	10.2	13.4	17.8	19.2	16.3
Gonococcal infections	159.5	227.3	231.4	215.5	181.9	174.6	160.6	139.4
Syphilis	11.5	17.2	11.8	9.3	9.7	12.2	10.3	8.6
Salmonella infections	19.4	12.7	33.8	34.9	35.6	44.5	31.5	41.3
Measles	34.6	39.8	9.5	4.3	3.8	16.2	11.1	59.0
Rubella	58.3	18.1	7.1	12.1	29.8	7.2	9.8	9.8
Pertussis	13.9	13.1	10.8	9.4	9.0	5.4	9.4	9.3

3.9 Cancer incidence, mortality and hospital separations, 1983

Province or territory of residence	Number of cases			Rate per 100,000 population		
	New primary sites ¹	Deaths from cancer	Hospital separations with cancer ^{2,3}	New primary sites ¹	Deaths from cancer	Hospital separations with cancer ^{2,3}
Newfoundland	1,299	797	3,164	224.8	137.9	548.2
Prince Edward Island	439	245	1,064	354.0	197.6	850.5
Nova Scotia	2,577	1,679	7,309	299.9	195.4	844.2
New Brunswick	2,185	1,145	4,783	309.2	162.0	673.4
Quebec	23,938	11,491	40,088	367.1	176.2	615.0
Ontario	31,262	15,964	70,726	354.6	181.1	797.9
Manitoba	4,275	2,079	8,063	408.2	198.5	766.4
Saskatchewan	3,456	1,717	7,435	348.1	173.0	744.6
Alberta	5,876	2,773	14,208	250.0	118.0	605.5
British Columbia	9,967	4,906	23,595	353.0	173.7	832.3
Yukon	25	23	..	112.1	103.1	..
Northwest Territories	61	46	..	126.0	95.0	..
Canada	85,360	42,865	180,435	343.1	172.2	724.9

¹ Excludes skin cancers other than melanoma.

² Information not available for Yukon and Northwest Territories.

³ Data listed under 1983 are for 1983-84.

3.10 Cancer incidence, mortality and hospital separations, by diagnosis, 1983

Cancer site ¹	New primary sites ²	Rate per 100,000 population ²	Deaths from cancer ²	Rate per 100,000 population ²	Hospital separations with cancer ^{2,3}	Rate per 100,000 population ^{2,3}
Population ('000)		24,819.1		24,819.1		
140-208 All cancers	85,274	343.6	42,796	172.4	180,435	724.9
140-149 Lip, oral cavity and pharynx	2,697	10.9	863	3.5	4,216	16.9
151 Stomach	3,038	12.2	2,197	8.9	5,205	20.9
153 Colon	8,264	33.3	3,820	15.4	11,604	46.6
154 Rectum	4,084	16.5	1,371	5.5	7,848	31.5
157 Pancreas	2,389	9.6	2,369	9.5	4,273	17.2
162 Lung	12,895	52.0	10,497	42.3	26,240	105.4
172 Malignant melanoma of the skin	1,768	7.1	431	1.7	1,705	6.9
173 Other of skin	..	..	112	0.5	2,741	11.0
174 Breast ⁴	10,801	43.5	3,808	15.3	17,256	137.3
180 Cervix uteri ⁴	1,607	6.5	479	1.9	3,627	28.9
182 Body of uterus ⁴	2,556	10.3	340	1.4	4,387	34.9
183 Ovary ⁴	1,773	7.1	1,043	4.2	6,026	48.0
185 Prostate ⁵	7,142	28.8	2,285	9.2	12,883	104.5
188 Bladder	4,026	16.2	970	3.9	11,125	44.7
189 Kidney	1,991	8.0	881	3.5	3,340	13.4
191 Brain	1,517	6.1	1,059	4.3	3,849	15.5
200-203 Lymphatic tissues	4,765	19.2	2,267	9.1	11,633	46.7
204-208 Leukemia	2,656	10.7	1,597	6.4	6,548	26.3
All other sites	11,305	45.5	6,407	25.8	35,929	144.4

¹ International Classification of Diseases, 9th Revision.² Excludes Yukon and Northwest Territories.³ Data listed under 1983 are for 1983-84.⁴ Females only.⁵ Males only.**3.11 Separated cases and operations in general and allied special hospitals, by age group, 1983-84 and 1984-85^{1,2}**

Year and item		Under 15	15-24	25-44	45-64	65 +	Total
1983-84							
All separated cases							
Cases	No.	486,967	511,118	979,203	758,028	888,821	3,624,137
Days in hospital	"	2,537,120	2,935,043	6,846,029	8,648,484	19,862,213	40,828,889
Average days per case	"	5.2	5.7	7.0	11.4	22.3	11.3
Separated cases undergoing surgery ³							
Cases (primary operations)	No.	155,072	320,136	649,420	375,331	323,049	1,823,008
Days in hospital	"	765,266	1,678,037	3,952,894	3,902,522	5,753,598	16,052,317
Average days per case	"	4.9	5.2	6.1	10.4	17.8	8.8
Rate per 100,000 population							
All separated cases		8,951	11,368	12,763	158,858	35,454	14,559
All operated cases		2,850	7,120	8,465	7,858	12,886	7,323
Days of all separated cases		46,633	65,278	89,232	181,059	792,270	164,020
Days of all operated cases		14,066	37,321	51,522	81,701	229,501	64,486
Population ('000)		5,440.6	4,496.2	7,672.2	4,776.6	2,507.0	24,892.6
1984-85							
All separated cases							
Cases	No.	469,905	491,928	996,189	757,680	924,831	3,640,533
Days in hospital	"	2,424,756	2,795,649	6,775,141	8,567,061	20,979,026	41,541,633
Average days per case	"	5.2	5.7	6.8	11.3	22.7	11.4
Separated cases undergoing surgery ³							
Cases (primary operations)	No.	149,756	306,339	661,247	376,378	337,948	1,831,668
Days in hospital	"	752,186	1,598,490	3,944,887	3,878,415	6,003,330	16,177,308
Average days per case	"	5.0	5.2	6.0	10.3	17.8	8.8
Rate per 100,000 population							
All separated cases		8,631	11,189	12,641	15,672	35,863	14,484
All operated cases		2,751	6,967	8,391	7,785	13,105	7,287
Days of all separated cases		44,536	63,585	85,969	177,207	813,519	165,271
Days of all operated cases		13,816	36,357	50,056	80,224	232,795	64,361
Population ('000)		5,444.5	4,396.7	7,880.9	4,834.5	2,578.8	25,135.4

¹ Fiscal years ending Mar. 31.² Excludes newborn and data for Yukon and Northwest Territories.³ Excludes diagnostic and therapeutic procedures.

3.12 Number and approved bed complement of operating hospitals, 1986-87

Province or territory	Type of hospital					Total, all hospitals	Total, beds
	General	Beds	Allied special	Beds	Mental	Beds	
Newfoundland	32	2,870	9	305	1	449	42
Prince Edward Island	7	690	1	63	—	—	8
Nova Scotia	44	4,896	3	485	2	446	49
New Brunswick	32	4,326	1	20	2	840	95
Quebec	119	31,152	56	10,470	18 ¹	10,817 ¹	193
Ontario	187	42,227	34	7,866	5	456	226
Manitoba	77	5,950	7	472	1	25	85
Saskatchewan	132	6,859	1	269	2	263	135
Alberta	117	13,497	27	3,695	2	1,072	146
British Columbia	92	16,960	21	2,862	3	1,428	116
Yukon	—	—	—	—	—	—	—
Northwest Territories	4	182	1	16	—	—	5
Canada	843	129,609	161	26,523	36	15,796	1,040
							171,928

¹ In 1985-86, data included with allied special, rehabilitation and extended care hospitals.

3.13 General and allied special hospital separations, days per 100,000 population, and average days of stay, by diagnostic category, 1981-82 to 1984-85¹

Diagnostic category ²	Separations	Separations per 100,000 population	Days per 100,000 population	Average days of stay
1981-82 ³				
Infective and parasitic diseases	46,667	191	1,871	9.8
Neoplasms	223,554	917	14,740	16.1
Endocrine, nutritional and metabolic diseases	66,024	271	4,694	17.3
Diseases of the blood and blood-forming organs	23,487	96	1,070	11.1
Mental disorders	156,171	641	18,294	28.6
Diseases of the nervous system and sense organs	158,653	651	12,580	19.3
Diseases of the circulatory system	399,556	1,639	41,035	25.0
Diseases of the respiratory system	355,270	1,458	11,484	7.9
Diseases of the digestive system	426,541	1,750	14,486	8.3
Diseases of the genito-urinary system	296,308	1,216	8,557	7.0
Complications of pregnancy, childbirth and the puerperium	514,053	2,109	10,088	4.8
Diseases of the skin and subcutaneous tissue	51,139	210	2,016	9.6
Diseases of the musculoskeletal system and connective tissue	184,579	757	9,614	12.7
Congenital anomalies	36,801	151	1,615	10.7
Symptoms and ill-defined conditions	178,096	731	7,268	9.9
Accidents, poisonings and violence (nature of injury)	317,681	1,303	13,901	10.7
Supplementary classifications	118,612	487	5,875	12.1
All causes	3,553,192	14,579	179,188	12.3
1982-83 ³				
Infective and parasitic diseases	46,478	189	1,893	10.0
Neoplasms	228,072	925	14,615	15.8
Endocrine, nutritional and metabolic diseases	69,182	281	4,476	16.0
Diseases of the blood and blood-forming organs	23,461	95	1,041	10.9
Mental disorders	155,261	630	16,937	26.9
Diseases of the nervous system and sense organs	164,057	665	11,891	17.9
Diseases of the circulatory system	408,924	1,659	38,672	23.3
Diseases of the respiratory system	378,604	1,536	12,187	7.9
Diseases of the digestive system	422,662	1,715	13,970	8.1
Diseases of the genito-urinary system	297,575	1,207	8,579	7.1
Complications of pregnancy, childbirth and the puerperium	514,769	2,088	9,771	4.7
Diseases of the skin and subcutaneous tissue	50,606	205	1,989	9.7
Diseases of the musculoskeletal system and connective tissue	188,049	763	9,523	12.5
Congenital anomalies	35,970	146	1,460	10.0
Symptoms and ill-defined conditions	183,289	743	6,813	9.2
Accidents, poisonings and violence (nature of injury)	307,190	1,246	13,079	10.5
Supplementary classifications	114,924	466	5,523	11.8
All causes	3,589,073	14,559	172,419	11.8

3.13 General and allied special hospital separations, days per 100,000 population, and average days of stay, by diagnostic category, 1981-82 to 1984-85¹ (concluded)

Diagnostic category ²	Separations	Separations per 100,000 population	Days per 100,000 population	Average days of stay
1983-84 ³				
Infective and parasitic diseases	49,436	199	1,843	9.3
Neoplasms	231,635	931	14,414	15.5
Endocrine, nutritional and metabolic diseases	73,602	296	4,344	14.7
Diseases of the blood and blood-forming organs	23,369	94	1,042	11.1
Mental disorders	158,796	638	16,976	26.6
Diseases of the nervous system and sense organs	170,191	684	11,258	16.5
Diseases of the circulatory system	413,968	1,663	33,446	20.1
Diseases of the respiratory system	365,654	1,469	11,240	7.7
Diseases of the digestive system	422,915	1,699	13,785	8.1
Diseases of the genito-urinary system	297,063	1,193	8,358	7.0
Complications of pregnancy, childbirth and the puerperium	517,420	4,116	19,166	4.7
Diseases of the skin and subcutaneous tissue	51,501	207	2,035	9.8
Diseases of the musculoskeletal system and connective tissue	190,879	767	8,957	11.7
Congenital anomalies	34,646	139	1,441	10.4
Symptoms and ill-defined conditions	189,309	761	5,971	7.9
Accidents, poisonings and violence (nature of injury)	303,605	1,220	12,962	10.6
Supplementary classifications	119,071	478	5,632	11.8
All causes	3,624,137	14,559	164,020	11.3
1984-85 ³				
Infective and parasitic diseases	49,917	199	1,859	9.4
Neoplasms	237,573	945	14,768	15.6
Endocrine, nutritional and metabolic diseases	73,324	292	4,259	14.6
Diseases of the blood and blood-forming organs	24,010	96	1,021	10.7
Mental disorders	158,399	630	17,708	28.1
Diseases of the nervous system and sense organs	172,704	687	11,450	16.7
Diseases of the circulatory system	415,396	1,653	34,150	20.7
Diseases of the respiratory system	364,428	1,450	11,603	8.0
Diseases of the digestive system	418,319	1,664	13,314	8.0
Diseases of the genito-urinary system	299,952	1,193	8,306	7.0
Complications of pregnancy, childbirth and the puerperium	520,056	4,093	18,749	4.6
Diseases of the skin and subcutaneous tissue	50,149	200	1,973	9.9
Diseases of the musculoskeletal system and connective tissue	189,982	756	8,683	11.5
Congenital anomalies	33,722	134	1,297	9.7
Symptoms and ill-defined conditions	192,804	767	6,043	7.9
Accidents, poisonings and violence (nature of injury)	306,151	1,218	12,989	10.7
Supplementary classifications	122,399	487	5,751	11.8
All causes	3,640,533	14,484	165,271	11.4

¹ Excludes newborn and data for Yukon and Northwest Territories.

² Major groupings of the International Classification of Diseases, 9th Revision. More detailed information is available in Statistics Canada publications *Hospital morbidity* (Catalogue 82-206) and *Hospital morbidity — Canadian diagnostic list* (Catalogue 82-209).

³ Fiscal year ending Mar. 31.

3.14 Hospital separations¹ by diagnostic category and sex, 1981-82 to 1984-85²

Diagnostic category	Sex	1981-82	1982-83	1983-84	1984-85
Infective and parasitic diseases	M	23,701	23,249	24,485	24,554
	F	22,966	23,229	24,951	25,363
Neoplasms	M	100,580	103,080	104,692	107,623
	F	122,974	124,992	126,943	129,950
Endocrine, nutritional and metabolic diseases	M	26,383	28,026	29,630	29,562
	F	39,641	41,156	43,972	43,762
Diseases of the blood and blood-forming organs	M	10,544	10,355	10,448	10,721
	F	12,943	13,106	12,921	13,289
Mental disorders	M	71,557	70,304	71,588	71,651
	F	84,614	84,957	87,208	86,748
Diseases of the nervous system and sense organs	M	76,004	77,872	79,896	80,415
	F	82,649	86,185	90,295	92,289
Diseases of the circulatory system	M	222,143	227,663	231,467	231,461
	F	177,413	181,261	182,501	183,935
Diseases of the respiratory system	M	197,625	208,845	202,728	200,818
	F	157,645	169,759	162,926	163,610
Diseases of the digestive system	M	220,581	217,716	216,635	212,912
	F	205,960	204,946	206,280	205,407
Diseases of the genito-urinary system	M	97,050	99,278	99,709	101,263
	F	199,258	198,297	197,354	198,689
Complications of pregnancy, childbirth and the puerperium	F	514,053	514,769	517,420	520,056
Diseases of the skin and subcutaneous tissue	M	25,047	24,756	25,470	24,882
	F	26,092	25,850	26,031	25,267

3.14 Hospital separations¹ by diagnostic category and sex, 1981-82 to 1984-85² (concluded)

Diagnostic category	Sex	1981-82	1982-83	1983-84	1984-85
Diseases of the musculoskeletal system and connective tissue	M	90,034	92,312	92,924	90,806
	F	94,545	95,737	97,955	99,176
Congenital anomalies	M	20,504	20,144	19,620	19,068
	F	16,297	15,826	15,026	14,654
Certain conditions originating in the perinatal period	M	..	..	6,421	6,504
	F	..	..	4,656	4,744
Symptoms and ill-defined conditions	M	84,390	86,102	89,052	90,507
	F	93,706	97,187	100,257	102,297
Accidents, poisonings and violence (nature of injury)	M	187,727	180,885	177,401	177,983
	F	129,954	126,305	126,204	128,168
Supplementary classifications	M	36,961	37,159	41,480	43,451
	F	81,651	77,765	77,591	78,948
All causes	M	1,490,831	1,507,746	1,523,646	1,524,181
	F	2,062,361	2,081,327	2,100,491	2,116,352

¹ Excludes newborn and data for Yukon and Northwest Territories.² Fiscal years ending Mar. 31.**3.15 Primary operations¹ in general and allied special hospitals, by age group and by sex, 1981-82 to 1984-85²**

Operation	Sex	Under 15	15-24	25-44	45-64	65 +	Total
1981-82							
All operations	M	96,163	86,431	143,292	179,200	144,924	650,010
	F	67,382	258,138	487,596	184,211	136,079	1,133,406
Total		163,545	344,569	630,888	363,411	281,003	1,783,416
1982-83							
All operations	M	92,838	82,513	145,649	183,269	154,665	658,934
	F	64,983	250,710	489,820	182,968	145,033	1,133,514
Total		157,821	333,223	635,469	366,237	299,698	1,792,448
1983-84							
Certain diagnostic and therapeutic procedures	M	26,135	12,482	30,072	53,462	71,677	193,828
	F	20,256	20,240	38,357	49,619	77,000	205,472
Nervous system	M	4,112	2,753	9,150	9,010	4,451	29,476
	F	3,144	1,794	7,028	7,585	4,582	24,133
Endocrine system	M	208	168	520	583	258	1,737
	F	174	463	1,822	1,889	737	5,105
Eyes	M	3,178	1,706	3,417	8,908	16,434	33,643
	F	2,827	1,106	2,473	8,381	26,228	41,015
Ears	M	6,255	1,464	2,845	2,047	669	13,280
	F	4,522	1,537	3,144	2,203	601	12,007
Nose, throat and pharynx	M	28,518	13,479	15,281	8,006	3,427	68,711
	F	26,911	16,953	12,251	5,822	3,134	65,071
Respiratory system	M	634	1,301	2,651	7,886	7,737	20,209
	F	386	623	1,948	4,305	4,033	11,295
Cardiovascular system	M	2,504	1,918	9,423	37,193	22,543	73,581
	F	2,327	1,458	9,132	19,366	15,210	47,493
Hematic and lymphatic systems	M	832	894	1,519	2,799	3,660	9,704
	F	654	625	1,577	2,688	3,827	9,371
Digestive system and abdominal region	M	15,330	13,397	35,647	50,885	39,699	154,958
	F	7,440	20,016	48,068	40,295	34,534	150,353
Urinary tract	M	2,212	2,411	8,234	13,430	16,985	43,272
	F	2,140	2,319	8,507	10,208	9,355	32,529
Male genital organs	M	9,649	2,980	6,547	14,221	29,336	62,733
Female genital organs	F	603	27,841	126,372	40,324	12,127	207,267
Obstetrical procedures	F	466	143,592	241,701	239	—	385,998
Musculoskeletal system	M	13,044	27,954	40,229	26,849	15,251	123,327
	F	9,665	14,665	21,858	26,266	31,357	103,811
Breast	M	156	559	419	389	325	1,848
	F	91	3,142	10,843	11,443	5,883	31,402
Skin and subcutaneous tissue	M	3,966	6,816	8,737	5,830	4,623	29,972
	F	2,966	6,077	7,763	5,861	5,534	28,201
Procedures not elsewhere classified	M	99	45	113	232	226	715
	F	56	74	186	187	263	765
All operations	M	116,832	90,327	174,804	241,730	237,301	860,994
	F	84,631	262,531	543,045	236,682	234,425	1,361,314
Total		201,463	352,858	717,849	478,412	471,726	2,222,308

3.15 Primary operations¹ in general and allied special hospitals, by age group and by sex, 1981-82 to 1984-85² (concluded)

Operation	Sex	Under 15	15-24	25-44	45-64	65 +	Total
1984-85							
Certain diagnostic and therapeutic procedures	M	25,507	11,917	30,200	56,138	77,180	200,942
	F	19,794	20,278	40,503	50,596	84,014	215,185
Nervous system	M	4,330	2,727	9,462	8,685	4,448	29,652
	F	3,187	1,811	7,041	7,537	4,845	24,421
Endocrine system	M	209	147	566	594	249	1,765
	F	196	532	1,786	1,738	735	4,987
Eyes	M	2,956	1,607	3,619	9,258	18,038	35,478
	F	2,454	1,023	2,491	8,926	29,067	43,961
Ears	M	5,895	1,363	2,756	1,958	637	12,609
	F	4,227	1,259	2,972	2,107	590	11,155
Nose, throat and pharynx	M	27,162	12,548	15,631	8,048	3,634	67,023
	F	25,748	15,871	12,280	5,780	3,218	62,897
Respiratory system	M	654	1,377	2,697	8,246	8,480	21,454
	F	398	626	1,967	4,700	4,374	12,065
Cardiovascular system	M	2,656	1,577	9,469	36,646	23,745	74,093
	F	2,360	1,599	8,886	19,266	16,912	49,023
Hematic and lymphatic systems	M	880	879	1,649	2,907	3,891	10,206
	F	615	653	1,621	2,728	3,885	9,502
Digestive system and abdominal region	M	14,402	12,798	35,867	50,763	39,892	153,722
	F	7,387	20,009	49,392	40,800	35,889	153,477
Urinary tract	M	1,986	2,275	8,343	13,613	17,054	43,271
	F	1,892	2,383	8,629	10,243	9,362	32,509
Male genital organs	M	9,289	2,914	6,442	15,007	30,553	64,205
Female genital organs	F	553	26,266	125,346	39,485	12,107	203,757
Obstetrical procedures	F	408	137,840	251,476	217	—	389,941
Musculoskeletal system	M	13,037	26,371	40,271	26,328	16,275	122,282
	F	9,719	13,689	22,251	26,678	32,961	105,298
Breast	M	158	553	378	398	356	1,843
	F	83	3,321	11,204	11,831	6,226	32,665
Skin and subcutaneous tissue	M	3,823	6,487	8,687	5,736	4,516	29,249
	F	2,919	5,697	7,736	5,738	5,483	27,573
Procedures not elsewhere classified	M	95	55	136	212	243	741
	F	77	79	186	204	283	829
All operations	M	113,039	85,595	176,173	244,537	249,191	868,535
	F	82,018	252,939	555,777	238,575	249,951	1,379,260
Total		195,057	338,534	731,950	483,112	499,142	2,247,795

¹ Excludes newborn and data for Yukon and Northwest Territories.

² Fiscal years ending Mar. 31.

3.16 Therapeutic abortions and rates, 1984-86

Province or territory of residence	Number of therapeutic abortions			Therapeutic abortions per 1,000 females 15-44 years			Therapeutic abortions per 100 live births		
	1984	1985 ¹	1986	1984	1985 ¹	1986	1984	1985 ¹	1986
Newfoundland	382	415	367	2.7	2.9	2.5	4.5	4.9	4.5
Prince Edward Island	12	13	13	0.4	0.4	0.4	0.6	0.5	0.7
Nova Scotia	1,703	1,698	1,704	8.2	8.0	8.0	13.8	13.6	13.8
New Brunswick	278	310	358	1.6	1.8	2.0	2.7	3.1	3.7
Quebec	9,720	11,311	12,410	5.9	6.9	7.5	11.1	13.1	14.7
Ontario	28,276	27,335	26,928	13.1	12.5	12.1	21.5	20.7	20.1
Manitoba	2,226	2,285	2,568	9.1	9.2	10.2	13.4	13.4	15.1
Saskatchewan	1,214	1,173	1,048	5.4	5.1	4.6	6.7	6.5	6.0
Alberta	6,668	6,547	6,313	11.2	11.0	10.5	15.1	14.9	14.4
British Columbia	11,449	11,264	11,386	16.7	16.4	16.5	26.1	26.1	27.1
Yukon	87	95	119	14.7	14.8	18.9	16.8	20.5	24.6
Northwest Territories	226	254	248	18.4	19.7	19.2	15.7	17.7	16.5
Residence unknown	6	14	—	...	...	—	...	...	—
Canada	62,247	62,712	63,462	10.2	10.2	10.2	16.5	16.7	17.0

¹ Revised for Canada and the province of Quebec, due to additional reports from Quebec.

3.17 Therapeutic abortions performed in clinics¹ in Quebec, 1978-86

Year	Therapeutic abortions in clinics	Year	Therapeutic abortions in clinics
1978	2,618	1983	3,635
1979	3,629	1984	3,571
1980	4,704	1985	3,706
1981	4,207	1986	3,498
1982	4,506		

¹ Régie de l'assurance-maladie du Québec, as of July 8, 1988.

3.18 Number of patient-days in operating hospitals¹, by type of hospital, 1986-87 and totals, 1977-78 to 1985-86

Province or territory ²	General	Special ³	Rehabilitation	Extended care ⁴	Other ⁵	Total
1986-87						
Newfoundland	761,655	45,485	3,810	150,351	1,718	963,019
Prince Edward Island	201,220	—	—	21,979	—	223,199
Nova Scotia	1,337,097	210,262	18,012	19,777	—	1,585,148
New Brunswick	1,277,955	—	4,790	243,910	—	1,526,655
Quebec	9,569,412	678,314	422,471	6,063,879	—	16,734,076
Ontario	13,052,925	476,342	199,009	2,002,759	20	15,731,055
Manitoba	1,627,240	9,910	—	142,635	—	1,779,785
Saskatchewan	1,865,888	—	—	159,180	—	2,025,068
Alberta	3,639,088	77,792	78,037	1,425,695	—	5,220,612
British Columbia	5,292,511	144,410	84,196	1,152,695	—	6,673,812
Northwest Territories	34,127	—	—	4,451	—	38,578
Canada	38,659,118	1,642,515	810,325	11,387,311	1,738	52,501,007
Canada						
1985-86	38,172,316	1,886,669	777,108	11,317,280	1,632	52,155,005
1984-85	37,573,133	1,882,562	737,380	11,629,379	1,765	51,824,219
1983-84	37,315,486	1,927,868	795,988	11,357,851	2,823	51,400,016
1982-83	36,526,238	1,753,619	764,712	10,674,151	2,470	49,721,190
1981-82	36,314,352	1,724,520	745,110	10,738,277	2,795	49,525,054
1980-81	35,662,717	1,468,187	673,179	10,176,405	3,382	47,983,870
1979-80	34,946,846	1,460,259	675,736	10,279,391	2,940	47,365,172
1978-79	34,930,832	1,264,046	710,135	10,177,698	3,300	47,086,011
1977-78	34,392,658	1,115,850	716,449	9,949,756	4,657	46,179,370

¹ Excludes data for federal and private hospitals.

² All six hospitals in Yukon are federal.

³ Includes pediatric, psychiatric short-term and other special hospitals.

⁴ Includes chronic care and psychiatric long-term care hospitals.

⁵ Includes nursing stations and outpost hospitals.

3.19 Number of operating public hospitals¹, by type of hospital, 1986-87 and totals, 1977-78 to 1985-86

Province or territory ²	General	Special ³	Rehabilitation	Extended care ⁴	Other ⁵	Total
1986-87						
Newfoundland	32	1	1	1	7	42
Prince Edward Island	7	—	—	1	—	8
Nova Scotia	44	3	1	1	—	49
New Brunswick	32	—	1	2	—	35
Quebec	119	12	8	54	—	193
Ontario	187	9	6	23	1	226
Manitoba	77	2	—	2	4	85
Saskatchewan	132	1	—	2	—	135
Alberta	117	3	1	24	1	146
British Columbia	92	4	3	17	—	116
Northwest Territories	4	—	—	1	—	5
Canada	843	35	21	128	13	1,040

3.19 Number of operating public hospitals¹, by type of hospital, 1986-87 and totals, 1977-78 to 1985-86 (concluded)

Province or territory ²	General	Special ³	Rehabilitation	Extended care ⁴	Other ⁵	Total
Canada						
1985-86	845	38	21	130	14	1,048
1984-85	846	37	20	131	14	1,048
1983-84	846	38	21	128	16	1,049
1982-83	856	37	21	128	21	1,063
1981-82	857	37	22	126	16	1,058
1980-81	855	28	21	130	15	1,049
1979-80	857	28	21	130	15	1,051
1978-79	861	25	21	131	15	1,053
1977-78	861	22	22	129	16	1,050

¹ Excludes data for federal and private hospitals.

² All six hospitals in Yukon are federal.

³ Includes pediatric, psychiatric short-term and other special hospitals.

⁴ Includes chronic care and psychiatric long-term care hospitals.

⁵ Includes nursing stations and outpost hospitals.

3.20 Mental disorders, separations, rates per 100,000 population and days of care, by age and sex, psychiatric and general hospitals, 1980-81 to 1983-84

Year and age	Sex	Psychiatric hospitals		General hospitals	
		Separations	Days of care	Separations	Days of care
1980-81					
0-19 years	M	1,712	164,802	6,613	138,916
	F	961	103,061	6,819	121,749
20-34 "	M	9,413	767,298	22,432	390,608
	F	4,561	392,098	23,952	438,724
35-44 "	M	3,706	398,744	12,534	182,862
	F	2,567	331,875	14,689	259,689
45-64 "	M	4,536	1,062,143	21,901	429,676
	F	4,131	825,331	24,846	539,695
65-74 "	M	930	561,070	6,285	210,746
	F	1,051	509,759	8,445	279,298
75 years and over	M	643	577,497	4,531	332,385
	F	728	687,995	7,039	632,589
All ages	M	20,940	3,531,554	74,296	1,685,193
	F	13,999	2,850,119	85,790	2,271,744
1981-82					
0-19 years	M	1,542	142,069	6,500	158,238
	F	847	57,140	6,737	117,932
20-34 "	M	9,236	814,601	21,589	422,654
	F	4,718	433,762	23,558	422,977
35-44 "	M	3,852	472,585	12,600	212,187
	F	2,628	325,495	14,429	255,848
45-64 "	M	4,211	1,034,001	20,217	551,606
	F	4,087	892,707	23,777	600,347
65-74 "	M	980	551,920	6,241	276,532
	F	1,147	564,528	8,755	375,788
75 years and over	M	646	593,106	4,410	355,694
	F	861	984,813	7,358	708,901
All ages	M	20,467	3,608,282	71,557	1,976,911
	F	14,288	3,258,445	84,614	2,481,793
1982-83					
0-19 years	M	1,462	120,060	5,954	130,728
	F	777	56,491	6,401	111,176
20-34 "	M	9,128	814,842	22,028	425,922
	F	4,521	473,146	23,226	423,932
35-44 "	M	3,846	409,576	12,292	219,252
	F	2,688	236,141	14,834	270,882
45-64 "	M	4,183	820,330	19,138	406,251
	F	3,961	671,720	23,536	522,591
65-74 "	M	971	751,809	6,237	254,229
	F	1,144	632,668	9,015	316,011
75 years and over	M	680	682,862	4,655	369,257
	F	895	938,253	7,945	725,221
All ages	M	20,270	3,599,479	70,304	1,805,639
	F	13,986	3,008,419	84,957	2,369,813

3.20 Mental disorders, separations, rates per 100,000 population and days of care, by age and sex, psychiatric and general hospitals, 1980-81 to 1983-84 (concluded)

Year and age	Sex	Psychiatric hospitals		General hospitals	
		Separations	Days of care	Separations	Days of care
1983-84					
0 - 9 years	M	1,405	112,683	5,967	130,822
	F	804	58,282	6,596	115,958
20 - 34 "	M	9,217	835,794	22,452	447,121
	F	4,428	432,482	23,762	450,549
35 - 44 "	M	4,061	430,855	12,870	222,884
	F	2,656	357,411	15,278	275,684
45 - 64 "	M	4,115	1,006,587	18,892	384,239
	F	3,810	642,434	23,504	526,657
65 - 74 "	M	1,007	905,895	6,346	253,500
	F	1,195	804,195	9,426	325,722
75 years and over	M	722	844,534	5,061	348,350
	F	889	1,372,836	8,642	744,315
All ages	M	20,527	4,136,348	71,588	1,786,916
	F	13,782	3,667,640	87,208	2,438,885

3.21 Mental disorders, separations, days of care and average (median) length of stay, by selected diagnostic class and sex, psychiatric and general hospitals, 1980-81 to 1983-84

Year and diagnostic class	Sex	Psychiatric hospitals			General hospitals		
		Separations	Days of care	Median stay in days	Separations	Days of care	Median stay in days
1980-81							
Organic psychotic conditions	M	1,236	393,396	42	7,817	376,676	8
	F	777	451,916	78	5,194	341,116	16
Schizophrenia	M	6,460	1,686,582	37	9,477	312,150	17
	F	3,664	1,047,860	44	9,097	309,237	19
Affective psychoses	M	1,916	178,877	32	6,357	165,364	17
	F	2,312	269,895	38	13,085	338,728	18
Other psychoses	M	977	135,413	29	3,638	96,290	13
	F	897	139,729	30	4,790	126,402	15
Neurotic disorders	M	1,270	68,524	20	10,992	146,444	7
	F	1,782	87,628	24	24,571	356,225	8
Personality disorders	M	2,286	202,395	18	3,067	49,222	8
	F	1,312	121,424	22	3,717	74,260	9
Alcohol dependence	M	3,434	99,085	19	18,283	212,622	6
	F	738	21,512	22	4,850	59,159	7
Drug problems	M	403	8,654	15	3,668	24,916	3
	F	250	6,617	15	2,326	23,096	4
Adjustment reaction	M	641	40,690	14	2,242	40,023	9
	F	573	42,581	15	3,948	63,830	9
Depressive disorders	M	183	14,549	20	3,306	49,547	8
	F	219	12,088	25	7,505	107,312	9
Mental retardation	M	609	434,082	48	528	39,717	12
	F	456	493,868	78	489	47,685	11
Other non-psychotic	M	1,525	269,307	21	4,921	172,222	8
	F	1,019	155,001	19	6,218	224,694	8
All diagnoses	M	20,940	3,531,554	26	74,296	1,685,193	8
	F	13,999	2,850,119	31	85,790	2,271,744	11
1981-82							
Organic psychotic conditions	M	1,273	483,146	47	7,951	424,177	8
	F	883	552,608	78	5,277	633,115	17
Schizophrenia	M	6,302	1,551,559	41	9,244	445,877	17
	F	3,587	1,083,766	47	8,813	392,076	19
Affective psychoses	M	2,003	185,966	34	6,439	163,982	17
	F	2,532	324,286	38	13,114	342,540	18
Other psychoses	M	999	106,525	26	3,325	109,518	12
	F	901	180,876	31	4,634	136,679	15
Neurotic disorders	M	1,056	66,706	21	10,254	130,963	7
	F	1,571	108,262	26	23,170	319,300	7
Personality disorders	M	2,302	160,995	19	2,950	45,868	10
	F	1,297	88,041	18	3,553	76,468	6
Alcohol dependence	M	3,110	101,937	20	16,270	180,125	6
	F	678	23,192	23	4,533	51,395	6
Drug problems	M	475	13,066	12	3,643	23,806	2
	F	249	5,775	12	2,362	20,098	4
Adjustment reaction	M	677	25,969	14	2,339	46,095	9
	F	687	28,630	16	4,238	71,378	9
Depressive disorders	M	255	23,365	28	3,636	54,113	8
	F	318	24,116	33	8,153	125,914	9

3.21 Mental disorders, separations, days of care and average (median) length of stay, by selected diagnostic class and sex, psychiatric and general hospitals, 1980-81 to 1983-84 (concluded)

Year and diagnostic class	Sex	Psychiatric hospitals			General hospitals		
		Separations	Days of care	Median stay in days	Separations	Days of care	Median stay in days
Mental retardation	M	604	639,764	82	584	159,447	11
	F	512	428,532	64	508	73,063	12
Other non-psychotic	M	1,411	249,284	21	4,922	192,940	8
	F	1,073	410,361	22	6,259	239,767	8
All diagnoses	M	20,467	3,608,282	28	71,557	1,976,911	8
	F	14,288	3,258,445	32	84,614	2,481,793	11
1982-83							
Organic psychotic conditions	M	1,176	545,028	58	7,657	431,272	8
	F	783	593,141	77	5,403	631,369	16
Schizophrenia	M	6,125	1,670,299	41	9,302	334,448	16
	F	3,477	1,092,428	44	8,712	297,489	19
Affective psychoses	M	2,067	168,500	33	6,949	178,158	18
	F	2,711	293,212	38	14,069	368,182	18
Other psychoses	M	938	132,912	28	3,606	92,497	12
	F	892	107,783	34	4,952	142,496	15
Neurotic disorders	M	1,084	58,541	22	10,128	126,858	7
	F	1,495	98,173	25	22,268	304,146	8
Personality disorders	M	2,424	202,502	19	2,981	47,542	7
	F	1,305	98,470	20	3,657	71,422	10
Alcohol dependence	M	2,949	89,965	23	14,820	167,084	6
	F	612	19,180	25	4,205	48,137	7
Drug problems	M	560	15,159	14	3,421	23,071	3
	F	254	6,034	18	2,365	20,966	4
Adjustment reaction	M	716	55,604	15	2,352	42,857	8
	F	707	41,713	17	4,258	71,448	9
Depressive disorders	M	285	17,037	31	3,970	61,192	8
	F	332	33,759	30	8,498	132,772	9
Mental retardation	M	559	437,703	63	463	102,973	14
	F	457	412,018	64	438	52,803	13
Other non-psychotic	M	1,387	206,229	21	4,655	197,687	8
	F	961	212,508	19	6,132	228,583	8
All diagnoses	M	20,270	3,599,479	27	70,304	1,805,639	9
	F	13,986	3,008,419	32	84,957	2,369,813	11
1983-84							
Organic psychotic conditions	M	1,197	506,373	56	7,479	374,393	8
	F	769	500,322	80	5,492	604,693	17
Schizophrenia	M	6,164	2,132,625	41	9,448	368,920	16
	F	3,371	1,734,171	47	8,639	298,682	18
Affective psychoses	M	2,224	213,335	35	7,150	184,606	17
	F	2,649	290,983	39	14,735	402,140	19
Other psychoses	M	958	109,318	..	3,842	106,826	..
	F	821	89,168	..	5,195	143,853	..
Neurotic disorders	M	1,022	44,603	24	9,988	124,279	7
	F	1,470	78,950	28	21,878	302,826	8
Personality disorders	M	2,303	196,556	21	3,232	53,374	7
	F	1,186	102,183	22	3,697	75,512	10
Alcohol dependence	M	2,890	80,809	24	14,443	160,244	6
	F	626	24,246	24	4,529	48,882	6
Drug problems	M	700	15,836	26	3,627	26,520	10
	F	300	7,848	35	2,489	21,249	11
Adjustment reaction	M	830	41,364	12	2,617	41,644	7
	F	807	37,325	14	4,401	71,243	9
Depressive disorders	M	336	23,380	31	4,386	69,566	9
	F	412	30,318	38	9,179	158,883	10
Mental retardation	M	530	400,833	53	517	88,363	13
	F	418	534,425	65	417	29,260	13
Other non-psychotic	M	1,373	369,895	..	4,859	188,181	..
	F	953	237,367	..	6,557	281,662	..
All diagnoses	M	20,527	4,134,927	28	71,588	1,786,916	38
	F	13,782	3,667,306	33	87,208	2,438,885	33

3.22 Approved bed complement in operating public hospitals¹, by type of hospital, 1986-87 and totals, 1977-78 to 1985-86

Province or territory ²	General	Special ³	Rehabilitation	Extended care ⁴	Other ⁵	Total
1986-87						
Newfoundland	2,870	230	42	449	33	3,624
Prince Edward Island	690	—	—	63	—	753
Nova Scotia	4,896	817	52	62	—	5,827
New Brunswick	4,326	—	20	840	—	5,186
Quebec	31,152	2,316	1,296	17,675	—	52,439
Ontario	42,227	1,797	664	5,858	3	50,549
Manitoba	5,950	50	—	434	13	6,447
Saskatchewan	6,859	45	—	487	—	7,391
Alberta	13,497	304	309	4,153	1	18,264
British Columbia	16,960	470	313	3,507	—	21,250
Northwest Territories	182	—	—	16	—	198
Canada	129,609	6,029	2,696	33,544	50	171,928
Canada						
1985-86	128,439	6,742	2,582	32,907	51	170,721
1984-85	126,905	6,718	2,522	34,326	52	170,523
1983-84	126,163	6,815	2,747	33,636	61	169,422
1982-83	124,664	6,349	2,627	34,081	96	167,817
1981-82	124,783	6,265	2,677	32,295	76	166,096
1980-81	123,109	5,333	2,409	30,197	74	161,122
1979-80	120,857	5,362	2,346	30,303	85	158,953
1978-79	122,523	4,875	2,419	29,875	96	159,788
1977-78	121,652	4,306	2,650	29,528	104	158,240

¹ Excludes data for federal and private hospitals.

² All six hospitals in Yukon are federal.

³ Includes pediatric, psychiatric short-term and other special hospitals.

⁴ Includes chronic care and psychiatric long-term care hospitals.

⁵ Includes nursing stations and outpost hospitals.

3.23 Operating expense per patient-day, for reporting public hospitals¹, by type of hospital, 1986-87 and totals, 1977-78 to 1985-86 (dollars)

Province or territory ²	General	Special ³	Rehabilitation	Extended care ⁴	Other ⁵	Total
1986-87						
Newfoundland	398.69	578.83	1,038.41	184.88	2,254.27	378.82
Prince Edward Island	275.89	—	—	126.88	—	261.22
Nova Scotia	379.75	420.93	424.76	400.33	—	385.98
New Brunswick	317.91	—	384.05	153.93	—	291.92
Quebec	333.94	427.40	177.79	242.39	—	256.72
Ontario	381.17	828.57	281.20	174.74	—	367.18
Manitoba	402.63	484.45	—	224.50	—	388.81
Saskatchewan	289.28	—	—	309.06	—	279.01
Alberta	384.26	1,282.12	401.83	352.83	—	332.67
British Columbia	272.52	977.74	267.60	109.14	—	269.71
Northwest Territories	621.63	—	—	151.05	—	567.34
Canada	349.18	636.32	244.85	274.50	2,254.27	312.06
Canada						
1985-86	328.98	528.82	238.84	131.03	2,785.63	291.87
1984-85	312.71	500.00	211.16	123.79	3,043.54	275.54
1983-84	298.17	464.78	211.67	116.12	1,739.49	263.06
1982-83	279.27	453.31	202.90	106.18	1,753.39	247.42
1981-82	246.88	383.29	184.82	95.87	945.88	217.97
1980-81	211.96	343.63	162.26	83.13	711.24	188.01
1979-80	183.91	294.37	135.71	71.43	685.95	162.25
1978-79	167.69	284.15	128.39	64.41	492.72	147.92
1977-78	153.95	283.15	117.93	57.03	404.09	135.65

¹ Excludes data for federal and private hospitals.

² All six hospitals in Yukon are federal.

³ Includes pediatric, psychiatric short-term and other special hospitals.

⁴ Includes chronic care and psychiatric long-term care hospitals.

⁵ Includes nursing stations and outpost hospitals.

3.24 Total operating expense for reporting public hospitals¹, by type of expense, 1985-86 and 1986-87 and totals, 1977-78 to 1984-85 (thousand dollars)

Province or territory ²	Gross salaries and wages	Medical and surgical supplies	Drugs	Employee benefits	Supplies and other expenses	Total
1985-86 ¹						
Newfoundland	214,918	14,136	9,500	22,627	76,461	337,642
Prince Edward Island	35,989	2,498	1,677	3,325	12,923	56,412
Nova Scotia	390,851	24,543	17,293	33,807	121,230	587,724
New Brunswick	285,789	18,149	11,658	27,299	84,779	427,674
Quebec	2,873,963	—	—	251,809	1,092,187	4,217,959
Ontario	3,510,369	222,459	163,846	347,629	1,001,045	5,245,348
Manitoba	426,654	25,003	18,041	35,517	143,565	648,779
Saskatchewan	367,133	22,371	15,708	32,486	96,829	534,527
Alberta	1,101,353	63,534	43,202	107,282	323,419	1,638,790
British Columbia	1,073,154	75,200	48,693	147,468	283,204	1,627,720
Northwest Territories	11,600	405	340	3,192	4,458	19,995
Total	10,291,773	468,298	329,958	1,012,441	3,240,100	15,342,570
1986-87						
Newfoundland	229,526	15,485	10,556	24,322	79,625	359,515
Prince Edward Island	38,855	2,667	1,767	3,586	12,070	58,944
Nova Scotia	406,196	28,174	18,962	35,747	129,826	618,906
New Brunswick	299,143	20,341	13,232	29,200	88,357	450,272
Quebec	2,908,805	—	—	274,982	1,143,281	4,327,068
Ontario	3,835,519	252,508	188,202	387,814	1,152,449	5,816,491
Manitoba	448,192	28,330	20,202	39,336	156,729	692,789
Saskatchewan	380,538	24,911	17,276	35,030	107,327	565,082
Alberta	1,174,484	70,017	50,043	117,156	351,706	1,763,406
British Columbia	1,157,828	85,237	54,659	160,359	251,088	1,709,171
Northwest Territories	12,344	499	394	3,519	5,190	21,945
Total	10,891,430	528,169	375,293	1,111,051	3,477,648	16,383,588
Canada						
1984-85	9,618,496	541,213	379,943	1,073,762	2,778,046	14,391,460
1983-84	8,906,053	480,463	333,408	1,005,341	2,567,686	13,455,633
1982-83 ³	8,335,185	328,904	225,417	869,398	2,488,020	12,249,895
1981-82 ³	7,372,704	283,962	188,272	734,062	2,214,770	10,793,771
1980-81	6,216,889	228,841	156,232	554,022	1,865,321	9,021,305
1979-80	5,332,535	187,339	134,038	428,242	1,602,908	7,685,062
1978-79	4,866,727	216,596	157,294	433,934	1,290,655	6,965,205
1977-78	4,409,819	187,801	139,883	395,770	1,130,401	6,263,673

¹ Excludes data from federal and private hospitals.² All six hospitals in Yukon are federal.³ In Quebec, employee benefits include a portion of undistributed expenses.

3.25 Physicians and population per physician, by province, 1975 and selected years, 1980-87¹

Province or territory	Number of physicians ²						
	1975	1980	1983	1984	1985	1986	1987
Newfoundland	732	866	976	981	975	1,042	1,070
Prince Edward Island	120	152	150	158	165	177	184
Nova Scotia	1,388	1,588	1,728	1,720	1,805	1,831	1,912
New Brunswick	741	786	929	937	956	930	968
Quebec	10,846	12,160	13,354	13,775	14,393	14,686	15,279
Ontario	15,121	16,664	18,214	18,607	19,481	20,076	20,847
Manitoba	1,732	1,878	2,104	2,123	2,162	2,203	2,226
Saskatchewan	1,305	1,442	1,568	1,572	1,605 ¹	1,630	1,700
Alberta	2,737	3,406	3,930	4,032	4,186	4,323	4,591
British Columbia	4,328	5,265	5,838	5,942	6,152	6,234	6,420
Yukon	23	28	30	31	28	29	32
Northwest Territories	30	40	39	38	40	46	46
Province unspecified	1	—	—	—	—	—	—
Canada	39,104	44,275	48,860	49,916	51,948 ¹	53,207	55,275

3.25 Physicians and population per physician, by province, 1975 and selected years, 1980-87¹ (concluded)

Province or territory	Population per physician ³						
	1975	1980	1983	1984	1985	1986	1987
Newfoundland	758	655	586	582	583	545	530
Prince Edward Island	983	805	831	796	766	716	696
Nova Scotia	595	533	499	505	483	479	461
New Brunswick	909	885	760	757	743	764	736
Quebec	573	527	485	472	454	447	433
Ontario	544	516	486	482	466	459	450
Manitoba	588	545	499	500	494	488	486
Saskatchewan	702	669	635	640	629	620	595
Alberta	663	647	595	580	564	549	520
British Columbia	568	516	485	482	469	467	461
Yukon	948	811	763	755	839	831	775
Northwest Territories	1,410	1,125	1,277	1,350	1,303	1,117	1,120
Canada	585	547	510	503	487	479	467

¹ As of Dec. 31 of each year.² Includes interns and residents.³ Figures for 1983-85 have been revised.

3.26 Active licensed dentists and population per dentist, 1975 and selected years, 1980-87¹

Province or territory	Number of dentists						
	1975	1980	1983	1984	1985	1986	1987
Newfoundland	88	110	128	135	137	137	135
Prince Edward Island	47	40	40	44	46	47	51
Nova Scotia	245	309	339	352	373	381	397
New Brunswick	136	183	203	211	214	229	227
Quebec	1,976	2,469	2,732	2,782	2,855	2,859	3,016
Ontario	3,539	4,510	5,027	5,177	5,327	5,425	5,496
Manitoba	365	439	468	486	497	508	516
Saskatchewan	278	322	346	364	366	376	381
Alberta	725	1,027	1,165	1,202	1,234	1,271	1,310
British Columbia	1,323	1,658	1,786	1,828	1,926	1,889	1,918
Yukon	8	12	14	15	19	13	16
Northwest Territories	8	16	23	28	33	29	40
Canada	8,738	11,095	12,271	12,624	13,027	13,164	13,503
Province or territory	Population per dentist ²						
	1975	1980	1983	1984	1985	1986	1987
Newfoundland	6,305	5,156	4,468	4,230	4,151	4,143	4,199
Prince Edward Island	2,511	3,060	3,115	2,859	2,748	2,698	2,512
Nova Scotia	3,373	2,741	2,543	2,468	2,338	2,302	2,220
New Brunswick	4,954	3,802	3,477	3,363	3,320	3,102	3,138
Quebec	3,143	2,597	2,372	2,337	2,287	2,298	2,195
Ontario	2,325	1,907	1,762	1,733	1,703	1,697	1,705
Manitoba	2,790	2,331	2,246	2,182	2,149	2,116	2,096
Saskatchewan	3,297	2,994	2,878	2,764	2,759	2,689	2,654
Alberta	2,503	2,146	2,007	1,946	1,912	1,866	1,821
British Columbia	1,857	1,639	1,587	1,566	1,497	1,540	1,544
Yukon	2,725	1,892	1,636	1,560	1,237	1,854	1,550
Northwest Territories	5,287	2,813	2,165	1,832	1,579	1,772	1,288
Canada	2,619	2,183	2,029	1,988	1,940	1,937	1,910

¹ As of Dec. 31 of each year.² Figures for 1983-85 have been revised.

3.27 Active optometrists and population per optometrist, 1975 and selected years, 1980-86

Province or territory	Number of active optometrists					
	1975	1980	1983	1984	1985	1986
Newfoundland	14	26	33	31	31	30
Prince Edward Island	6	6	7	7	6	8
Nova Scotia	32	38	47	47	48	56
New Brunswick	41	55	66	71	70	75
Quebec	605	692	828	822	893	901
Ontario	527	593	701	725	747	801
Manitoba	62	66	73	73	76	75
Saskatchewan	80	89	93	94	95	96
Alberta	163	175	200	207	212	211
British Columbia	148	169	197	205	209	217
Yukon	2	2	2	2	2	2
Northwest Territories ¹	5	5	3	3	2	2
Canada	1,685	1,916	2,250	2,287	2,386 ²	2,474
Province or territory	Population per active optometrist					
	1975	1980	1983	1984	1985	1986
Newfoundland	39,629	21,815	17,330	18,423	18,345	18,920
Prince Edward Island	19,667	20,400	17,800	17,971	21,067	15,850
Nova Scotia	25,828	22,287	18,340	18,487	18,171	15,659
New Brunswick	16,434	12,649	10,694	9,993	10,150	9,472
Quebec	10,267	9,267	7,827	7,911	7,310	7,292
Ontario	15,614	14,502	12,639	12,371	12,145	11,492
Manitoba	16,423	15,506	14,396	14,529	14,053	14,332
Saskatchewan	11,459	10,833	10,708	10,702	10,629	10,532
Alberta	11,131	12,592	11,690	11,300	11,128	11,242
British Columbia	16,602	16,081	14,385	13,966	13,796	13,410
Yukon	10,900	11,350	11,450	11,700	11,750	12,050
Northwest Territories	8,460	9,000	16,600	17,100	26,050	25,700
Canada	13,581	12,642 ³	11,065	10,971	10,593	10,308

¹ Optometrists registered and licensed but not resident.² Some optometrists are practising in more than one province. This year five optometrists were double-counted; therefore, total for Canada does not agree with sum of provinces.³ Only available data for 1980, for provinces, are as of June 30, 1980.**3.28 Nurses registered, by province of employment or residence¹, 1975 and 1983-87²**

Province or territory	Number of nurses					
	1975	1983	1984	1985	1986	1987
Newfoundland	3,052	3,868	3,868	4,326	4,836	4,590
Prince Edward Island	900	885	963	980	1,113	1,150
Nova Scotia	5,819	7,519	7,966	8,305	8,596	8,933
New Brunswick	4,627	6,127	6,375	6,115	6,874	6,899
Quebec	38,276	50,841	51,787	55,288	56,758	57,726
Ontario	79,520	89,725	89,723	91,505	94,118	96,303
Manitoba	7,081	8,340	8,675	8,800	9,232	9,389
Saskatchewan	6,930	7,693	8,289	8,347	8,704	8,605
Alberta	13,637	19,280	20,582	20,714	21,453	21,977
British Columbia	16,921	23,666	24,304	24,803	25,042	25,862
Yukon and Northwest Territories	419	400	428	467	455	521
Canada	177,182	218,344	222,960	229,650	237,181	241,955
Province or territory	Population per nurse					
	1975	1983	1984	1985	1986	1987
Newfoundland	182	148	148	131	117	123
Prince Edward Island	131	141	131	129	114	111
Nova Scotia	142	115	109	105	102	99
New Brunswick	146	115	111	116	103	103
Quebec	162	127	126	118	116	115
Ontario	103	99	100	99	98	97
Manitoba	144	126	122	121	116	115

3.28 Nurses registered, by province of employment or residence¹, 1975 and 1983-87² (concluded)

Province or territory	Population per nurse					
	1975	1983	1984	1985	1986	1987
Saskatchewan	132	129	121	121	116	118
Alberta	133	121	114	114	111	109
British Columbia	145	120	118	116	116	114
Yukon and Northwest Territories	153	182	175	162	166	146
Canada	129	114	113	110	108	107

¹ Interprovincial duplicate registrations have been removed; the data refer to responses received from the survey questionnaire. Province of residence is used for nurses not employed.

² After 1978, figures refer to only those nurses who registered in Canada during the first four months (three months in Quebec) of the registration renewal period. This fact, and a simplified method for eliminating interprovincial duplicates, hinder comparison with previous years. Numbers include only nurses registered in the same province as that in which they work or reside.

3.29 Licensed, resident and practising pharmacists¹ and population per pharmacist, 1983-87

Province or territory	Number of pharmacists				
	1983	1984	1985	1986	1987
Newfoundland	345	372	398	380	397
Prince Edward Island	53	56	62	60	68
Nova Scotia	522	567	586	620	625
New Brunswick	340	357	369	385	399
Quebec	3,050	3,255	3,598	4,048	3,865
Ontario	4,977	5,070	5,406 ²	5,276	5,104
Manitoba	798	772	779	868	772
Saskatchewan	846	861	855	883	907
Alberta	1,812 ³	1,875 ³	1,956 ³	1,987	2,005
British Columbia	2,036 ⁴	2,030 ⁴	2,045 ⁴	2,114 ⁴	2,170
Yukon	12	13	15	14	13
Northwest Territories	24	21	21	20	23
Canada	14,815	15,249	16,090	16,655	16,348

Population per pharmacist					
Newfoundland	1,658	1,535	1,429	1,494	1,428
Prince Edward Island	2,351	2,246	2,039	2,113	1,884
Nova Scotia	1,651	1,532	1,488	1,414	1,410
New Brunswick	2,076	1,987	1,925	1,845	1,785
Quebec	2,125	1,998	1,814	1,623	1,713
Ontario	1,780	1,769	1,678	1,745	1,836
Manitoba	1,317	1,374	1,371	1,238	1,401
Saskatchewan	1,177	1,168	1,181	1,145	1,115
Alberta	1,290	1,248	1,206	1,194	1,190
British Columbia	1,392	1,410	1,410	1,377	1,365
Yukon	1,908	1,800	1,567	1,721	1,908
Northwest Territories	2,075	2,443	2,481	2,570	2,239
Canada	1,680	1,645	1,571	1,531	1,578

¹ Includes non-practising and honorary pharmacists.

² Increase reported to be due to influx of pharmacists from other provinces.

³ As of Dec. 1, 1983 and 1984 and Feb. 1986.

⁴ The College of Pharmacists of British Columbia in 1983 kept statistics on the number of practising licenses issued only. Whether or not the pharmacists were residents of the province and employed was unknown.

3.30 Total health expenditures, public and private, selected years, 1960-85

Year	Expenditures \$'000,000	Annual percentage increase	Percentage of GNP	Per capita \$
1960 ^f	2,142	—	6	120
1965 ^f	3,415	10	6	174
1970 ^f	6,256	13	7	293
1975 ^f	12,239	14	7	539
1980 ^f	22,719	13	8	943
1981 ^f	26,643	17	8	1,094
1982 ^f	31,173	17	9	1,267
1983 ^f	34,697	11	9	1,397
1984	37,420	8	9	1,497
1985	39,793	6	9	1,580

3.31 Percentage distribution of health expenditures, public and private, by category, selected years, 1960-85

Category	1960	1965	1970	1975 ^f	1980 ^f	1981 ^f	1982 ^f	1983 ^f	1984	1985
Hospitals	37.9	42.7	45.0	44.5	41.0	41.4	42.0	41.7	40.8	40.4
Other institutions	5.7	6.1	7.2	9.8	11.9	11.6	11.6	11.7	11.5	11.3
Physicians	16.6	16.0	16.6	15.7	15.1	14.9	14.9	15.3	15.5	15.7
Dentists	5.1	4.7	4.2	4.9	5.7	5.5	5.3	5.3	5.4	5.5
Other professional services	2.3	1.9	1.5 ^f	1.1	1.2	1.2	1.3	1.3	1.3	1.3
Drugs and appliances	14.5	13.3	12.5	10.7	10.8	11.1	10.8	11.2	11.9	12.4
All other health costs	17.9	15.3	13.0 ^f	13.3	14.3	14.3	14.1	13.5	13.6	13.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

3.32 Governmental health expenditures, federal, provincial and local, selected years, 1960-85

Year	Expenditures \$'000,000	Annual percentage increase	Percentage of GNP	Per capita \$	Percentage of total national health expenditures
1960 ^f	915	—	2.4	51	42.7
1965	1,779	14.2 ^f	3.1	90	52.1
1970	4,392	19.8	5.0	206	70.2
1975 ^f	9,360	16.3	5.5	412	76.5
1980 ^f	17,036	12.7	5.6	708	75.0
1981 ^f	20,192	18.5	5.9	829	75.8
1982 ^f	23,709	17.4	6.5	964	76.1
1983 ^f	26,475	11.7	6.7	1,067	76.3
1984	28,445	7.4	6.6	1,138	76.0
1985	30,222	6.2	6.5	1,200	75.9

3.33 Total national health expenditures, public and private, by province, selected years, 1960-85 (million dollars)

Province or territory	1960	1965	1970	1975	1980	1981	1982	1983	1984	1985
Newfoundland	31	52	97	239	451	527	602	684	714	745
Prince Edward Island	10	14	26	55	115 ^f	125	138	144	152	163
Nova Scotia	74	116	195	393	670	815	953	1,051	1,168	1,259
New Brunswick	62	87	144	275 ^f	552	667	802	874	936	975
Quebec	530	953	1,708	3,286 ^f	5,951 ^f	6,855 ^f	7,813 ^f	8,642 ^f	9,242	9,877
Ontario	821	1,291	2,438	4,567 ^f	7,970 ^f	9,244 ^f	10,816 ^f	12,282 ^f	13,541	14,539
Manitoba	114	167	295	545	990	1,174	1,336	1,477 ^f	1,612	1,730
Saskatchewan	116	157	238	459	853	989	1,174	1,359	1,471	1,551
Alberta	163	265	486	1,012	2,157	2,633	3,422	3,708	3,847	4,062
British Columbia	219	308	618	1,370	2,923	3,506	3,953	4,295	4,547	4,680
Yukon and Northwest Territories	3	5	11	37	86	107	164	180	190	213
Total	2,142	3,415	6,256	12,239 ^f	22,719 ^f	26,642 ^f	31,173 ^f	34,697	37,420	39,793

3.34 Total national health expenditures, public and private, by province and category, 1984 and 1985 (million dollars)

Category	Nfld.	PEI	NS	NB	Que.	Ont.	Man.	Sask.	Alta.	BC	YT and NWT	Total
1984 ¹												
Hospitals	337	65	559	422	4,312	5,161	640	522	1,511	1,653	76	15,259
Other institutions	84	20	90	124	1,140	1,483	221	287	394	463	5	4,310
Physicians	78	18	162	115	1,261	2,350	199	176	559	873	17	5,810
Dentists	17	7	57	30	357	849	82	72	164	377	2	2,014
Other professional services	3	1	4	5	89	218	17	16	67	71	1	490
Drugs and appliances	91	23	181	121	958	1,755	194	178	395	546	9	4,451
All other health costs	105	19	115	118	1,125	1,725	259	220	757	565	80	5,087
Total expenditures	714	152	1,168	936	9,242	13,541	1,612	1,471	3,847	4,547	190	37,420
Per capita (\$)	1,248	1,214	1,352	1,320	1,423	1,519	1,528	1,469	1,646	1,595	2,589	1,497
1985 ¹												
Hospitals	350	66	584	434	4,492	5,510	678	538	1,647	1,703	84	16,087
Other institutions	87	21	96	128	1,199	1,509	229	301	418	490	5	4,482
Physicians	82	20	179	123	1,344	2,617	207	185	591	885	18	6,249
Dentists	18	7	63	33	388	928	90	77	177	395	2	2,178
Other professional services	3	1	4	6	99	234	17	17	69	76	1	526
Drugs and appliances	101	28	207	135	1,067	1,962	209	196	431	585	10	4,930
All other health costs	104	20	126	118	1,289	1,777	301	237	728	547	93	5,341
Total expenditures	745	163	1,259	975	9,877	14,539	1,730	1,551	4,062	4,680	213	39,793
Per capita (\$)	1,305	1,296	1,447	1,373	1,516	1,612	1,628	1,537	1,730	1,629	2,816	1,580

¹ Calendar year.

Sources

3.1 – 3.24 Health Division, Statistics Canada.

3.25 – 3.34 Policy, Communications and Information Branch, Health and Welfare Canada.

CHAPTER 4

EDUCATION

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EDUCATION

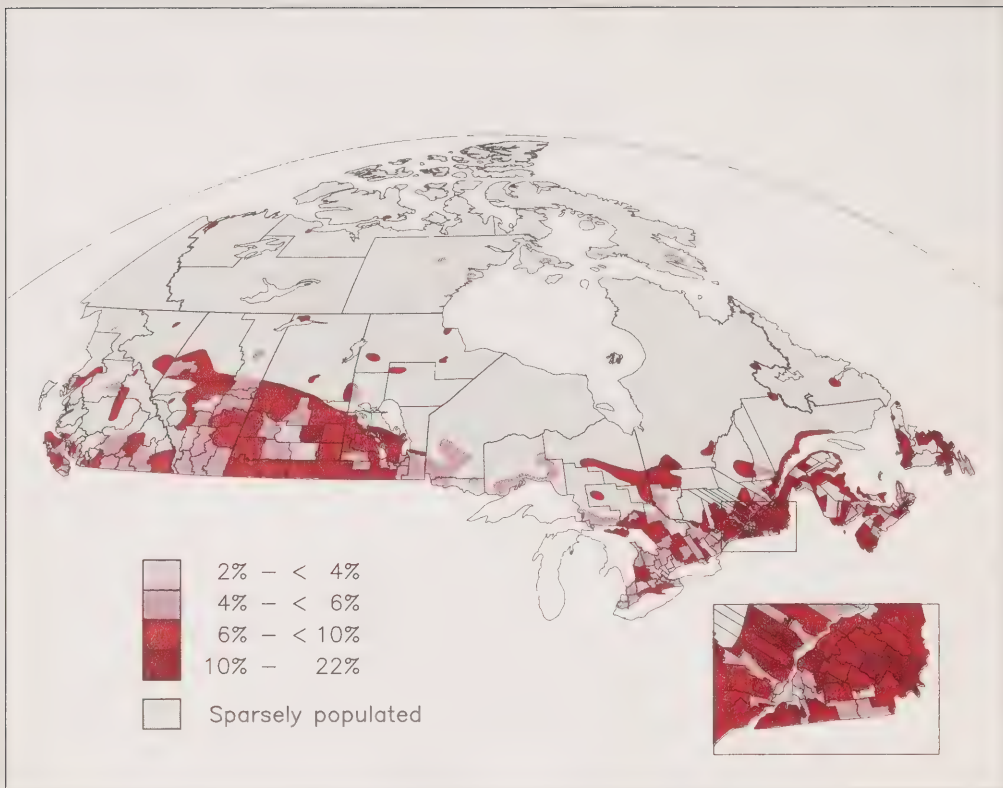
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PERCENTAGE OF POPULATION AGED 15-64 YEARS WITH UNIVERSITY DEGREES, 1986

People with university degrees in 1986 tended to live near Canada's major urban areas. The Census Metropolitan Area with the highest percentage of university degree graduates was Ottawa-Hull, with 19% of people aged 15-64 holding university degrees.

The province with the lowest percentage of people with university degrees was Newfoundland, with 6%, while the highest was Ontario, with 12%.

In 1986, 10% of people in Canada aged 15-64 had a university degree; this compares with a Canadian average of only 3% in 1961.

1986 data mapped by Census division

Map produced by the Geocartographics Division, Statistics Canada.

CHAPTER 4

EDUCATION

4.1 Education in Canada

4.1.1 Summary statistics

Between 1971 and 1986, the median number of years of formal schooling of Canada's adult population rose from 10.6 to 12.2. In 1986, the proportion of adults who were graduates of universities or community colleges stood at an estimated 22.4%, up from 17.6% at the beginning of the 1980s.

Full-time postsecondary enrolment increased throughout the 1970s and early 1980s, while enrolment at lower levels declined. Total full-time postsecondary enrolment reached 797,000 in 1986-87, a 32% increase from 10 years earlier. Growth was slow in the late 1970s, averaging just over 1% a year. At the beginning of the 1980s, enrolment rose rapidly, gaining more than 5% each year, but by mid-decade, annual increases had dropped to less than 1%.

About six out of 10 full-time postsecondary students are enrolled in universities; the rest attend community colleges. After two years of decline, full-time university enrolment started to increase in 1979-80. The following year, numbers surpassed the previous high reached in 1976-77 and continued rising. The 1986-87 total of 475,400 was a 26% increase over 1976-77.

Full-time postsecondary students in community colleges totalled 321,600 in 1986-87, up 46% from 1976-77 but down slightly from the high of 322,300 attained the previous year. Although growth was steady, annual gains were greatest in the early 1980s and have since fallen off.

The number of full-time postsecondary teachers rose in both universities and community colleges, but more rapidly in the latter to keep pace with faster enrolment growth. In 1986-87, full-time university teachers totalled 35,600; full-time community college faculty teaching at the postsecondary level numbered 23,600.

Over 4.9 million students were enrolled in elementary and secondary schools in 1986-87. This represented a 15% drop from the all-time high of 5.8 million in 1970-71. Elementary-secondary

enrolment fell steadily, following the all-time high in 1970-71, although the rate of decline levelled off in the early 1980s. Annual losses in the late 1970s were around 2%; between 1982-83 and 1985-86, the yearly losses were about 0.5%. The first increase in enrolment (0.2%), in over a decade and a half, occurred in 1986-87.

In 1986-87, there were nearly 270,000 full-time elementary-secondary teachers. This was a 9% decrease from the high of 284,900 in 1976-77. With the exception of one year, the elementary-secondary teaching force declined annually from 1976-77 to 1985-86. An increase was recorded in 1986-87.

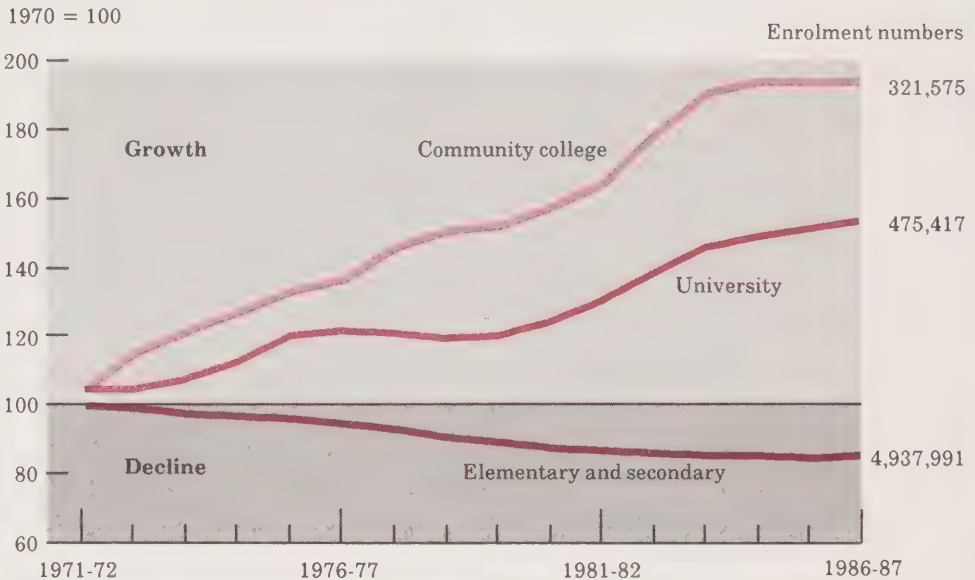
Spending on education from kindergarten through graduate studies rose steadily to an estimated \$36.8 billion in 1986-87, an increase of 144% from a decade earlier. During the same period, the Consumer Price Index went up by 110%. Elementary-secondary education absorbed \$23.4 billion of the 1986-87 budget. University education received \$7.3 billion; college, \$2.9 billion; and vocational training, \$3.1 billion.

4.1.2 History of education

The earliest organized forms of education in the territory that was to become Canada were under church control. Quebec was founded as a colony of France in 1608, and the first school opened soon afterward. But it was not until 1824 that Quebec passed an education act. Nova Scotia had done so in 1766, followed by New Brunswick in 1802 and Ontario in 1807. Nevertheless, until the mid-19th century, education continued to be church-dominated.

During the 1840s and 1850s, a public system of education was developed in Quebec (Canada East), supplemented by schools and colleges operated by Roman Catholic orders. At the same time, Ontario (Canada West) also established a public system, as did the Maritimes (New Brunswick, Nova Scotia and Prince Edward Island). Higher education before Confederation was conducted in private institutions, most controlled by religious authorities.

Chart 4.1

Enrolment growth and decline

Constitutional responsibility. The Constitution Act, 1982, re-affirmed the provisions of the Constitution Act, 1867 (formerly called the British North America Act), Section 93 of which placed education “exclusively” under the control of each province. Thus, variations in the systems that already existed in Ontario, Quebec, New Brunswick and Nova Scotia were ratified. Other provinces that were admitted (Manitoba 1870, British Columbia 1871, Prince Edward Island 1873, Saskatchewan and Alberta 1905, and Newfoundland 1949) were able to establish their own education systems.

Despite variations such as ages of compulsory attendance, course offerings and graduation prerequisites, the education systems that evolved in each province basically consist of three levels: elementary, secondary and postsecondary. The number of years required to complete each level and the dividing lines between them differ from province to province.

Growth in education. Until the late 1940s, Canada, according to a report by the Organization for Economic Co-operation and Development, was “one of the less educationally developed of the great

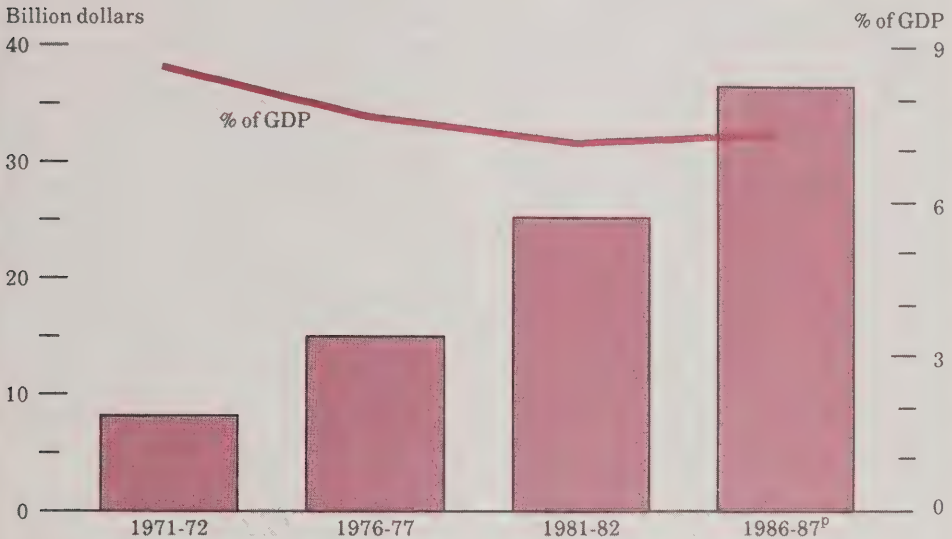
democracies”. Today, Canada ranks among the world’s educational leaders.

In the post-war period, Canada’s enrolment increased faster than that of any other industrialized country, spurred by unprecedented population growth combined with the desire of students to continue to higher levels. The population grew because of the post-war baby boom and sizable net immigration. Rising expectations and widespread belief in education as a means of upward mobility encouraged students to stay in school longer.

Between 1951 and 1971, elementary-secondary enrolment more than doubled. The 1960s were the decade of fastest growth, with the number of elementary-secondary students increasing 40%, and postsecondary enrolment, 170%. Enrolment reached its peak in 1970-71.

During the 1960s, education expenditures grew at an average yearly rate of more than 15% (at times reaching 20%) to \$7.7 billion in 1970. These expenditures were equivalent to nearly 8% of GDP and absorbed 22% of government spending, more than any other major area. In 1986, expenditures on education represented an estimated 7.3% of GDP.

Chart 4.2

Expenditures on education and percent of Gross Domestic Product^P Preliminary.

4.2 Elementary and secondary schools

4.2.1 Administration and organization

Each province has a department of education headed by a minister who is an elected member of the provincial cabinet or, in the case of the Yukon and Northwest Territories, a councillor.

While the education minister has general authority, day-to-day operation of the department is carried out by a deputy minister who advises the minister and supervises all functions of the department. These functions include: supervision and inspection of elementary and secondary schools; provision of curriculum and school organization guidelines; approval of new courses and textbooks; production of curriculum material; finance; teacher certification; prescription of regulations for trustees and teachers; research; and support services such as libraries, health and transportation.

In most provinces, responsibility for teacher training has been transferred from teachers' colleges to universities. Increasingly, an elementary teacher must have a bachelor's degree. The Nova Scotia Teachers' College is the only remaining institution of its kind.

Schools in all provinces are established under a public school act and operated by local

authorities answering to the provincial government and resident ratepayers. Provincial authorities delineate school board areas and the responsibilities of boards. With the growth of cities and towns, and of educational facilities and requirements, small local boards have been consolidated into central, regional or county units with jurisdiction over both elementary and secondary schools in a wider area. The boards, composed of elected or appointed trustees or commissioners, are responsible for school management. Their powers, determined and delegated by the legislature or education departments, vary from province to province. Generally, they handle the business aspects of education — establishment and maintenance of schools, appointment of teachers, purchase of supplies and equipment, details of school construction, and budget preparation. Boards are authorized to levy taxes or to requisition taxes from municipal governments and manage grants from the department.

At the elementary and secondary levels, schools are classified according to the nature of control: public, private or federal. Public schools, including Protestant and Roman Catholic separate schools, are operated by local education authorities according to public school acts of the provinces.

Private schools are operated and administered by individuals or groups. Schools for the handicapped, most under direct provincial government administration, provide special facilities and training. Federal schools are administered directly by the federal government.

One obvious difference among provincial education systems is provision for separate schools. Some provinces allow religious groups to establish schools under the authority of the education department. They must conform to department regulations on curriculum, textbooks and teacher certification. As legal corporations, separate school boards can levy taxes and receive government grants.

About 5% of all elementary-secondary students attend schools that are run independently of the public systems. Provincial policies vary from direct operating grants to no provincial support.

A number of strategies have been developed to educate children with special needs or abilities, an estimated 5% to 10% of all students. They may be accommodated in separate institutions (public or private) or in special or integrated classes in regular schools. For academically gifted students there are enriched and accelerated programs. Schools for the blind and deaf are generally administered directly by a province, sometimes by interprovincial agreement. Many local systems provide special schools or classes for children with learning disabilities.

Although education is primarily a provincial responsibility, the federal government has assumed direct control over the education of persons beyond the bounds of provincial jurisdiction: native people, armed forces personnel and their families, and the inmates of federal penal institutions.

Education of registered Indian and Inuit children is an obligation of the Department of Indian and Northern Affairs. The Minister of the department is authorized to maintain schools for these children directly or provide access to educational services in public or private schools.

In 1986-87, the federal government owned and operated 141 schools on Indian reserves. In addition, native band councils managed 244 schools, although the Minister makes regulations on matters such as curriculum, buildings, inspection and teaching.

In the Yukon and Northwest Territories, the Department of Indian and Northern Affairs cooperates with the territorial departments of education for the schooling of native children.

Across Canada, about half the native children attend provincial public schools. The federal

government reimburses the provinces, either by paying tuition or contributing to the schools' capital costs.

Counselling units in Ottawa and Winnipeg assist northern native students attending high school, technical school, college or university in Southern Canada.

The Department of National Defence maintains schools for dependents of service personnel at military establishments in Canada and overseas. The curriculum of these schools in Canada follows that of the province where they are located. The policy, however, is to avoid building schools where children can attend local institutions. Provinces are reimbursed on a per-pupil basis for armed forces dependents in public schools.

In 1986-87, there were nine overseas schools — in Belgium, the Netherlands and the Federal Republic of Germany. The curriculum to Grade 8 in the English schools is not patterned after any province; Grades 9 to 13 follow the Ontario curriculum. In the French schools, all grades follow the Quebec curriculum.

Grade structure. School attendance is compulsory for about 10 years in every province. The starting age is 6 or 7, and the minimum leaving age, 15 or 16. The elementary-secondary program, however, usually extends over 12 years. In most provinces, kindergarten classes are provided in public elementary schools; in other provinces, the only pre-Grade 1 classes are in private schools operating under varying degrees of provincial supervision.

Levels within elementary-secondary schools differ from one province to another. The elementary level covers the first six grades in most jurisdictions; in others, Grades 7 and/or 8 are considered elementary. As a result, interprovincial variations also exist at the secondary (high) school level. These schools include five or six grades and may be further subdivided into junior high schools, senior high schools or junior-senior high schools.

The curriculum of elementary-secondary schools also varies, although the provinces share general commonalities. Programs from Grade 1 to the beginning of secondary school are usually designed to develop the same basic skills in reading, writing, speaking and mathematics.

At one time, secondary schools were predominantly academic and prepared students for university. Vocational schools were separate institutions located only in large cities. Today, in addition to technical and commercial high schools, most secondary institutions offer both purely academic courses as a prelude to university; and vocational courses ranging from one to four years that prepare students either for an occupation or for

further postsecondary education at a community college.

Promotion by subject rather than by grade has been implemented to a large extent in secondary schools. Some jurisdictions have partially or entirely eliminated age-grouped classes. Graduation depends on accumulation of a requisite number of credits. Graduation certificates are issued by the province on the recommendation of individual schools.

Finance. In 1986-87, expenditures on the elementary-secondary level were estimated at \$23.4 billion. This represented nearly 64% of all education spending.

Financing elementary-secondary education has traditionally been a municipal responsibility, with local real estate taxes paying most of the cost of basic education. School boards determine their budgets, and thus, the taxes required. In most cases, municipalities levy and collect taxes for the boards, but in some jurisdictions, the school boards or the provincial department of education perform this function. Taxes on real estate are still a vital element of elementary-secondary finance, however, the municipal share, in 1986-87, was 25%, compared with 49% in 1960.

The relative contributions of the local and provincial levels differ from province to province. A system of formula financing determines the distribution. The intention is first to secure minimum standards, and second, to moderate differences of wealth and income in different localities.

Part of the support is actually federal, channelled through the provinces. Direct federal expenditures cover some 3% of the elementary-secondary total, including what is spent on Indian and overseas schools. The federal government also contributes to elementary-secondary education under a federal-provincial program for the support of official languages in education.

4.3 Postsecondary education

Postsecondary education can be obtained from community colleges (non-degree-granting) and universities (degree-granting). As the term "postsecondary" suggests, admission to this level is normally contingent upon graduation from secondary school. Specifically excluded from postsecondary education is trade/vocational training, although it is available in some community colleges.

A feature of postsecondary education in Canada today is its variety. Colleges and universities offer a wide range of programs at a number of levels culminating in diplomas, certificates or degrees,

which signify that graduates are qualified for semi-professional or professional occupations.

No single government office, provincial or federal, has sole responsibility for postsecondary education. Each provincial government has developed a different set of structures to govern and fund higher education.

Finance. Postsecondary education in Canada is essentially government-financed. Expenditures on postsecondary education have risen from about \$330.5 million in 1960 to \$2.1 billion in 1970, and an estimated \$10.2 billion in 1986. University education accounted for \$7.3 billion, and community college, \$2.9 billion. Together, federal and provincial governments contributed 83% of the total.

Federal involvement in postsecondary education is mainly financial. From 1951 to 1966, the federal government made direct operating grants to eligible universities and colleges, with total allotments to any province calculated per capita of population. In 1967, the federal government stopped paying regular operating grants directly to institutions, except for sponsored research and to four federally owned establishments. Instead, under the Federal-Provincial Fiscal Arrangements Act, transfers were made to the provincial governments. This Act was replaced in 1977 by The Federal-Provincial Fiscal Arrangements and Established Programs Financing Act.

The 1977 Act specified a method of financing federal contributions to postsecondary education, hospital insurance and medicare. Cost-sharing formulas for these three programs were replaced by a formula under which federal contributions are determined independently of program costs in the provinces. Federal contributions take the form of cash payments and a transfer of tax points to the provinces. Postsecondary education accounts for about one-third of the total contribution. About one-third of the total value of the tax transfer to the provinces is considered to be in respect of postsecondary education. This split, however, does not imply any necessary spending allocation by the provinces.

4.3.1 Universities and degree-granting colleges

Universities offer education designed to develop critical and creative abilities as well as to provide a pool of highly qualified manpower. Any institution that has been given the power to grant degrees is normally called a university, although it may also be called a college, institute or school. In addition to universities *per se*, the definition includes liberal arts colleges, colleges of theology, and a number of other institutions that grant degrees

Chart 4.3
Percentage of university degrees awarded to women and selected undergraduate specializations

University degrees

Undergraduate degrees

Master's degrees

Earned doctorates

Selected undergraduate specializations

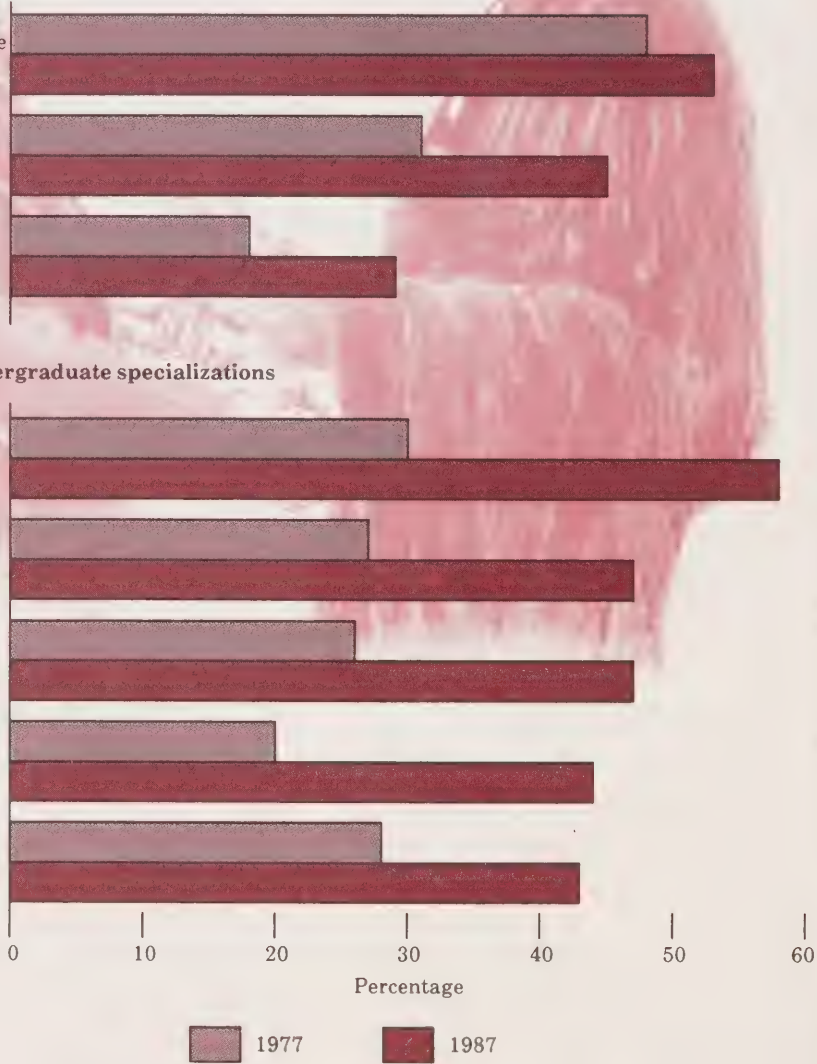
Veterinary medicine

Law

Agriculture

Business and commerce

Medicine



in specialized fields such as agriculture or fine arts. Liberal arts colleges are smaller institutions with degree programs usually only in arts. Colleges of theology offer degrees in theology only.

History. The first institutions of higher education in Canada followed European models. The Séminaire de Québec, founded in 1663, was the base upon which Université Laval was established in 1852. The oldest English-language institution, King's College in Windsor, Nova Scotia, opened in 1789.

By 1867, Quebec had three universities and 712 classical colleges. There were three universities in New Brunswick, five in Nova Scotia and seven in Ontario.

Queen's and Victoria universities, supported by the Presbyterian and Methodist churches, had been chartered in Ontario. Their purpose was to train clergy and a small, select group of laymen who wished to enter the professions. Teaching concentrated on theology, philosophy, the classics, medicine and law.

About the middle of the 19th century, McGill University introduced courses in natural sciences, opened a normal school for elementary teachers, and pioneered instruction in applied science and engineering. Similar changes were taking place at other institutions — Dalhousie in Halifax, Queen's in Kingston, and the University of Toronto.

While the trend in English-language institutions was toward practical and scientific studies and secular control, in the French-language sector, emphasis continued on classical studies under clerical control.

When the four western provinces were settled, new institutions were created. The University of Manitoba was granted a charter in 1877. Provincial universities were established in Alberta in 1908 and in Saskatchewan in 1909. The University of British Columbia, although chartered in 1908, did not open until 1915. By the outbreak of World War I, a score of universities had developed distinctive characteristics. To the traditional faculties of theology, law and medicine, schools of engineering, agriculture, forestry, education, dentistry and home economics had been added.

Some institutional expansion occurred after World War I; by 1939, Canada had 28 universities. They varied in size from the University of Toronto with full-time enrolment of about 7,000 to institutions with fewer than 1,000 students. The total of about 40,000 students represented 5% of the population aged 18 to 24.

Radical changes began after World War II. As a result of a veterans' rehabilitation program,

53,000 ex-soldiers entered the universities between 1944 and 1951. The immediate problem of space was solved by temporary buildings and creation of satellite colleges. By the mid-1950s, places vacated by veterans had been filled with an increasing number of high school graduates. Demands for university expansion continued, but the full force of this pressure came in the 1960s; enrolment rose from 128,600 to 323,000 in 1971-72.

In the early 1970s, growth rates slowed, despite the continued increase in the population aged 18 to 24. Part-time enrolment began to increase more rapidly than the number of students registered for full-time study.

Organization and administration. With minor exceptions, the provinces have authorized the establishment and institutional structures of universities through legislative acts. No two Canadian universities are alike, but their structure and organization are relatively standard.

Universities are not always independent establishments — they can be associated with a parent institution in several ways. A federated college or university has a high degree of independence in that it is responsible for its own administration and can grant degrees. This degree-granting power, however, may be temporarily suspended while the federation exists. Some federated institutions suspend only part of their degree-granting powers, retaining the right, for example, to grant degrees in theology, but not in arts and sciences.

Like federated colleges, affiliated institutions are responsible for their own administration, but they have no power to grant degrees. In both federated and affiliated institutions, the parent university is responsible for teaching and granting degrees in all subjects covered by the federation or affiliation agreements.

Constituent universities and colleges represent still another form of organization. These institutions are fully incorporated into the parent universities, both administratively and academically.

Reflecting the linguistic profile of the country, most universities are English-speaking. Of the seven independent French-speaking institutions, four are in Quebec; Nova Scotia, New Brunswick and Ontario each have one. In addition, two Ontario universities are bilingual, offering instruction in both English and French. Others conduct classes in one language only, but permit students to submit term papers, examinations and theses in either language. As well, there are a number of French affiliates of English and bilingual institutions.

The vast majority of universities receive heavy financial support from the federal and provincial governments. The largest share — about 65% — comes from the provincial governments. Direct federal funding, which is mainly for research, makes up another 15%; tuition fees, 11.0%; and other sources, about 10% each. These figures, however, hold at the national level only. For individual institutions, the extent of government funding ranges from a minimal proportion of income at small, church-affiliated institutions to over 90% of the budget of some universities.

The institutional structure of the universities is established by provincial legislative act. The traditional form of university government is a two-tier system: a board of governors and an academic senate. By statute, corporate power usually resides in the board of governors, which makes final policy decisions. The board exercises formal control over matters such as finance and the physical plant. The majority of board members are private citizens drawn from the business and professional communities, who are appointed for short terms. Participation on boards by academic administrators has increased in recent years, and faculty and students have been admitted.

The senate is the university's senior academic body. Although it is subject to the authority of the board of governors, the senate is responsible for academic policy, covering matters such as admission requirements, approval of courses and programs, qualifications for degrees, and academic planning.

Admission. Every university, and in some instances each faculty, sets its own admission standards. Nonetheless, institutions in the same province generally maintain similar requirements, particularly for undergraduate arts and science programs. In all the provinces except Ontario and Quebec, prospective university students must complete 12 years of elementary-secondary school.

Most Ontario universities require completion of 13 grades, although some make provision to admit limited numbers with 12 years of school, and a few offer a preliminary (qualifying) year of study that students may take instead of Grade 13.

Quebec students must generally obtain a *diplôme d'études collégiales* (DEC) granted after two years of pre-university study at a *collège d'enseignement général et professionnel* (CEGEP). Entry to a CEGEP is after 11 years of elementary-secondary education.

High school graduation alone does not guarantee acceptance into a university program; specific courses and marks are generally required for entry to each faculty. For applicants who do

not meet these criteria but are able to undertake university instruction, most institutions allow for the admission of "mature students" — people aged 21 and over who have been out of school for several years.

Programs. Basically, universities confer two types of qualification — degrees and diplomas/certificates — at two levels: undergraduate and graduate. Degrees are offered by most universities at three levels: bachelor's (BA or BSc) and first professional, master's (MA or MSc), and doctorate (PhD).

Students in bachelor's and first professional degree programs and those in programs leading to diplomas or certificates are known as undergraduates. Bachelor's degrees require a minimum of three years of full-time study after secondary completion. A distinction may be made between general (pass) and honours degrees, the latter of which are more specialized and may involve an additional year.

Criteria for admission to graduate studies vary in different universities. A bachelor's degree at the honours level is usually necessary for acceptance into a master's program. Entrants to doctoral studies must have a master's degree in the same field and high achievement at the master's level. Professional degrees are granted in disciplines where the normal first degree is not a bachelor's, for example, Doctor of Medicine (MD).

Programs culminating in diplomas have never been a major feature of Canadian universities. Those that are available tend to be in professional areas such as health science, education, agriculture and business.

Each university provides a varied range of courses, but no single institution can offer all of the approximately 1,500 different courses that are now taught across Canada.

Educational staff. During the 1960s, the demand for growth necessitated rapid and massive staff recruitment. From about 7,000 in 1960-61, the full-time university teaching force increased to more than 35,000 in 1986-87.

Four ranks of academic staff are recognized in most universities: full professor, associate professor, assistant professor, and lecturer/instructor. Appointments are usually made on the recommendation of a committee constituted for that purpose and in accordance with procedures developed at each institution. Appointees generally must be doctoral degree-holders, but the requirement varies between theoretical and applied fields.

Students. The 475,417 full-time students in Canadian universities in 1986-87 were equivalent to

15.4% of the population aged 18 to 24, more than double the proportion in 1960. In addition, 287,497 part-time students were registered in degree programs.

Tuition fees differ from one province to another, from one university to another, and from one faculty to another. In all provinces except Newfoundland and Manitoba, higher fees are required of foreign students. Student fees made up one-quarter of university income in the early 1960s, but with the increase in public funding, the proportion has been reduced to approximately one-tenth.

4.3.2 Community colleges

Traditionally, higher education was the almost exclusive preserve of universities. Now, although universities still account for about 60% of full-time students, postsecondary education is offered in about 200 other institutions which have developed as an alternative to university.

A community college is normally defined as a public or private postsecondary institution conducting semi-professional career programs, and in some instances, university transfer programs. These institutions may also offer some or all of the following: secondary level academic upgrading, trade/vocational courses, and other credit or non-credit programs oriented to community needs. While the term "community college" is used to refer to these establishments in a general sense, this classification includes: colleges of applied arts and technology in Ontario (CAATs); colleges of general and vocational education in Quebec (CEGEPs), an acronym from the French designation *collèges d'enseignement général et professionnel*; institutes of applied arts and sciences in Saskatchewan; technical/vocational and university-oriented colleges in British Columbia, Alberta and Yukon; institutes of technology or technical institutes; colleges of agricultural technology; and colleges providing training in other specialized fields such as art, fisheries, and marine and paramedical technologies. The Nova Scotia Teachers' College, the only institution of its kind to remain independent of the universities, is also included.

Hospital schools of nursing are not considered community colleges, but do comprise part of postsecondary non-university enrolment. In 1964, Toronto's Ryerson Polytechnical Institute became the first non-hospital institution to train nurses. Since then, most nursing programs have been transferred from hospital schools to community colleges. The former no longer exist in Quebec, Ontario and Saskatchewan. In the other western

provinces, training is still offered in hospital schools, but programs are also available in community colleges. Only in the Atlantic region is nurses' training carried out exclusively in hospital schools.

History. Many of today's community colleges began as private church-related colleges, public technical schools or university affiliates. In the early 1960s, new educational systems were developed, not only to meet demands resulting from the population explosion, but also to satisfy the increasing need for skilled technical workers. Often on the recommendation of specially appointed commissions, the provinces organized postsecondary non-university education into a community college system either by transforming older institutions or founding new ones. The outcome was the "community college", a type of postsecondary institution designed to offer a range of advanced programs apart from those traditionally associated with university.

Provincial legislation either brought the community colleges into being or enabled their establishment. Not all related institutions were transformed into community colleges and amalgamated into a province-wide network — a few continue to operate privately.

Organization and administration. The structure and organization of community colleges and other forms of postsecondary non-university education differ from province to province. The provinces, however, are partially or totally responsible for co-ordinating, regulating and financing community colleges. Financial support is derived substantially, if not completely, from provincial and federal sources, the latter coming through transfer payments. Some provinces finance them completely, while others do so in part. Similarly, the colleges' local autonomy varies.

Most colleges have a board of governors, although some, notably institutes, come under direct government control. The board members are appointed by the provincial government (in Ontario, some members are chosen by the municipality) or elected, and consist of a combination of lay appointees, faculty, students, parents and non-academic institutional staff. In addition, four provinces — New Brunswick, Quebec, Ontario and British Columbia — have government advisory bodies or "super boards".

There are at least four patterns of provincial government management: (1) direct establishment and operation, largely confined to institutes of technology in the West and the Atlantic provinces; (2) a triangular partnership between the government, colleges and school district boards, existing

only in British Columbia; (3) much delegation of provincial administrative responsibility to college boards, co-ordinated by a provincial commission or board, as in Ontario and New Brunswick; and (4) a partnership between the department of education and college boards supplemented by non-governmental college associations, as in Quebec.

Admission. Community colleges are based on the philosophy that educational opportunities should include a broad segment of society. Criteria of admission are flexible. Secondary school graduation is usually required, but it may be waived in the case of mature applicants. Qualifying programs are also offered to help them attain the appropriate academic level.

Programs. A community college curriculum typically offers a wide range of programs, not all of which are at the postsecondary level. For example, the curriculum may provide trades training, basic upgrading, remedial and literary courses, and programs for personal and community enrichment. The two types of postsecondary programs that may be offered are career/technical and university transfer.

Career/technical programs usually require high school graduation for admission. They prepare students for direct entry into the labour force at a technical, mid-managerial or professional assistant level in fields such as engineering, health sciences, business, social service, and public safety. Programs last at least one year, but more often two or three, and sometimes four.

University transfer programs consist of one or two years of academic instruction that provide students with standing equivalent to the first or second year of a university degree program, with which application for admission to subsequent years in a degree-granting institution can be made. Transfer arrangements are established either between individual colleges and universities or on a provincial basis.

Since one of the primary objectives of community colleges is to make education accessible to as many potential students as possible, courses may be offered on- or off-campus, day or evening, on a semester, trimester or quarter basis. Most colleges operate year-round.

Educational staff. With the emphasis on instruction, community college faculty tend to have heavy teaching loads. Career program instructors, in particular, are generally oriented toward the practical rather than the theoretical side of teaching. They are often hired on the basis of their background in areas such as business, industry or trade.

In 1964-65, the number of full-time teachers at the postsecondary level in community colleges was estimated at 4,900; in 1986-87, there were 23,600 full-time teachers at the post-secondary level in community colleges.

Students. Total full-time enrolment at the postsecondary level in community colleges was 321,575 in 1986-87, a 40% increase from a decade earlier, but down slightly from the all-time high of 322,270 reached in 1985-86. Nearly 70% of the students were in career/technical programs; the other 30% were taking university transfer programs.

4.3.3 Trade/vocational training

Education at the postsecondary level is not the only option available to Canadian residents who wish to pursue their studies. A large number of institutions provide short-term training in practical skills with immediate labour market applicability. Trade/vocational training makes the school-to-work transition easier for young people and ensures that workers in mid-career have continuing access to new skills and new job opportunities.

Trade/vocational education refers to programs that lead to occupations not at the professional or semi-professional levels. Emphasis is on the performance of well-defined procedures with varying degrees of complexity and responsibility, rather than on the application of ideas and principles. The object is to prepare students to work in specific trades or occupations after a relatively short period of instruction.

Trade/vocational training varies between and within provinces. It is offered in public and private institutions such as community colleges, public trade schools and vocational centres. It may also take place on the job, in apprenticeship programs or in training programs of industry.

History. The federal government's involvement in training, particularly in the institutional aspects, dates back to the early years of this century when rapid industrialization gave added importance to technical skills. Since public schools and universities rarely offered such instruction, this was one of the first areas of education in which the federal government became involved.

Initial federal involvement, however, was essentially financial. In co-operation with several provinces, an agricultural training program was set up in 1913. In 1919, under the Technical Education Act, federal authorities offered to support provincial programs, but few provinces were ready to participate.

By World War II, enough programs had been instituted to warrant appointment of a national

council of federal, provincial and public representatives to advise the Labour Minister on matters relating to vocational education. At that time, most vocational institutions were administered by a variety of provincial government departments such as labour, agriculture, commerce and industry.

During the 1950s, a shortage of technical manpower prompted federal officials to give the provinces more aid for vocational training. By 1960, about 30 technical institutes had been opened. The Technical and Vocational Training Assistance Act, designed to encourage the provinces to extend and improve facilities, was passed in 1960. Thereafter, new comprehensive schools frequently incorporated vocational programs. Federal participation increased after 1967 with adoption of the Adult Occupational Training Act and purchase of courses given in various types of provincial institutions. Under this Act, the federal government took a more active role in decisions about the selection of trainees, types of training and geographic distribution of training. Employer-centred training was brought within the scope of the Act by a 1972 amendment.

This legislation was replaced in 1982 by the National Training Act, which established the National Training Program. The program was operated in partnership with the provinces and territories and administered through Canada Employment Centres across the country. The National Training Program supported training for which there was labour market demand through the purchase of courses from community colleges and vocational schools, a shared-cost incentive training program with employers, and establishment of a fund to provide or improve training facilities.

In 1985, the federal government revamped its approach to training with the Canadian Jobs Strategy, designed to increase job security for Canadians and contribute to economic growth.

Programs and institutions. Trade/vocational programs emphasize the performance of established procedures and techniques. Most programs can be completed in less than a year, and courses for less complex occupations may last only a few weeks.

As well as public trade schools, institutions offering trade/vocational training include the trade divisions of community colleges and schools for specific occupations such as forestry, police and firefighting. Nursing assistant (nurses' aide) programs are offered in public trade schools, hospital schools and establishments that operate solely as nursing assistant schools.

Public trade schools and vocational centres concentrate on teaching one or more vocational skills. Most such schools are under the administration of a provincial department of education. They should not be confused with public vocational or technical secondary schools administered by local school boards. Trade schools may be separate establishments or divisions of a community college. Not all community colleges provide trade-level training, but those that do usually have separate divisions or centres.

Only people who have left the regular school system and are older than compulsory age may attend. High school graduation is not usually required. Depending on the province and the trade, admission standards can range from Grade 8 to Grade 12.

In Quebec, trade/vocational training is organized somewhat differently, based on the province's definition of an adult student. "La loi sur la formation professionnelle des adultes" defines adult students as people 16 and older who have not attended school for at least 12 consecutive months. Most adult vocational instruction takes place in "les écoles polyvalentes", which are the equivalent of Quebec high schools. Although both the regular secondary level and adult training programs are administered by local school boards, the administration of each level is separate. The écoles polyvalentes are the main source of public trade/vocational training in Quebec, although specialized establishments and some community colleges also have enrolment at this level of instruction.

A number of institutions offer academic upgrading designed to raise trainees' general level of education in one or a series of subjects. Courses may be taken to qualify for admission to higher academic studies or vocational training. However, completion of levels corresponding to the final grades of secondary school does not give high school graduation status.

Rather than attend an educational institution, individuals may acquire training related to a specific trade or occupation as they work. On-the-job training is organized instruction offered in a production environment.

Apprenticeship programs combine on-the-job training with classroom instruction. Persons contract with an employer to learn a skilled trade and eventually reach journeyman status. Apprentices may be registered with a provincial or territorial labour or manpower department. The department sets standards for journeyman qualification: minimum age, educational levels for admission, minimum wages, duration of apprenticeship and the ratio of apprentices to journeymen.

Non-registered apprentices enter into a private agreement with an employer, perhaps in association with a labour union. They are not subject to regulations established by the provincial department for that trade.

In co-operation with the provinces, the federal government has introduced standard interprovincial examinations to promote the mobility of journeymen. Those who pass examinations in certain apprenticeable trades have an interprovincial seal attached to their certificate, allowing them to work in any province.

Business and industrial establishments train new employees, retrain experienced workers or upgrade their qualifications. Publicly supported, in full or in part, or entirely financed by the company, training can be on-the-job, classroom instruction, or a combination of the two.

In 1985, the federal Department of Employment and Immigration inaugurated the Canadian Jobs Strategy, a co-operative effort with the provinces, business, labour and community groups for training and skill development. The strategy consists of six programs, four of which focus specifically on training. These programs are designed to help: workers whose jobs are threatened by changing technology and economic conditions; women and young people entering the labour market; the long-term unemployed; and employers who need workers with specialized training.

The federal Vocational Rehabilitation for Disabled Persons Act facilitates trades training for the handicapped. The federal government reimburses the provinces for 50% of costs for programs that enable disabled people to support themselves fully or partially. The provinces provide training directly in community colleges and trade schools or purchase it from the private sector or voluntary agencies.

4.3.4 Continuing education

Continuing or adult education is adapted to the needs of people not in the regular system. Out-of-school adults (15 and older) are able to pursue accreditation or to advance their personal interests. Continuing education is given by school boards, provincial departments of education, community colleges and universities. Programs are also conducted or sponsored by non-profit organizations, professional associations, government departments, business and industry. Instruction is not centred exclusively around institutions; it is also available by correspondence course, from travelling libraries, and over radio and television.

History. School boards and provincial departments of education have offered evening classes

for adults since the turn of the century. Rapid development occurred after World War II.

At the postsecondary level, extension programs have been part of some universities for many years. Agricultural extension education was provided in Alberta and Saskatchewan; at St. Francis Xavier University in Nova Scotia, fishermen's co-operatives were organized. Besides these practical and vocational programs, other cultural and recreational services were developed by several urban universities in Central Canada. Some courses were for academic credit, others were not. Many were offered only on campus, others in external centres as well.

In 1983, an estimated 3.2 million adults took at least one adult education course. More than half of these students attended an educational institution, but employers and voluntary organizations also figured prominently as providers of continuing education.

Courses. Continuing education programs offer both credit and non-credit courses. Credit courses sponsored by school boards and departments of education may be applied toward a high school diploma. Credits in academic or vocational subjects can be acquired through evening classes or correspondence study. Postsecondary credit courses count toward a degree, diploma or certificate.

Non-credit courses for personal enrichment or leisure teach hobby skills (for example, arts and crafts), social education (health and family life), recreation (sports and games), and subjects such as investment and driver education. Professional development and refresher courses are also available.

Courses may be formal or non-formal. Formal courses are structured units of study presented systematically. Non-formal courses are activities for which registration is not required, but where attendance for a scheduled period is necessary.

4.4 Federal involvement

4.4.1 Department of National Defence

The Department of National Defence instructs and trains members of the armed forces and is responsible for the schooling of children of service personnel in government quarters. The department also finances and operates three tuition-free colleges: the Royal Military College of Canada (RMC) in Kingston, Ontario; Royal Roads Military College (RRMC) in Victoria, British Columbia; and the Collège militaire royal (CMR) de Saint-Jean in Saint-Jean, Quebec. These institutions educate and train officer cadets

and commissioned officers for careers in the Canadian forces.

RMC was founded in 1876 and accorded degree-granting status in 1959. The college accepts high school graduates and offers four-year degree programs in arts, engineering and science, and graduate studies in selected disciplines.

RRMC was established in 1942 as a naval cadet college. It became a Canadian services college in 1948 and was accorded degree-granting status in 1975. RRMC accepts high school graduates into arts, science and engineering programs, and offers degrees in physics and oceanography, physics and computer science, general science, and military and strategic studies. Engineering students transfer to RMC after completion of the second year.

CMR was established in 1952 and from 1969 to 1985 was affiliated with l'Université de Sherbrooke, which conferred degrees on CMR graduates. In 1985, the province of Quebec accorded degree-granting status to CMR. The college offers degree programs in arts, science, administration and computer science. After third year, officer cadets go to RMC for engineering or to RRMC for its specialized programs.

4.4.2 Indirect participation

The growth of education, both in size and importance, made it almost inevitable that the federal government would play some role in its development, even though the constitution restricts direct participation. Many departments have educational functions, but they tend to be financial, such as grants for postsecondary and minority language education, funds for citizenship and language instruction for immigrants, and sponsorship of manpower training programs.

Department of the Secretary of State. In 1963, the education support branch of the Department of the Secretary of State was established to advise the Cabinet on postsecondary education. In 1967, it assumed responsibility for administering those parts of the Federal-Provincial Fiscal Arrangements Act related to postsecondary finance. By 1973, the branch's authority had been enlarged to include development, formulation, implementation and review of all federal policies and programs on education. This entailed communication with provincial governments, the academic community and national organizations, and co-operation with the Department of External Affairs to co-ordinate Canada's international efforts.

In addition to administering postsecondary adjustment payments, the branch took over the Canada Student Loans Program from the Department of Finance in 1977. Established in 1964 under

the Canada Student Loans Act, the program guarantees loans to students whose resources are insufficient to provide for the cost of full- or part-time studies at the postsecondary level.

Applications for loans are assessed by provincial governments according to criteria agreed upon by both levels of government. Federal and provincial officials meet regularly to review student assistance issues so that all applicants are treated as equitably as possible.

The loans, negotiated by students at banks or other financial institutions designated by the Secretary of State, are guaranteed by the government of Canada. The government pays interest on the loans while borrowers are enrolled in full-time studies and for six months afterwards. Under a special interest relieving program, introduced in 1983, an extension to 18 months may be granted to individuals who are unemployed or temporarily incapacitated. There is no interest subsidy on loans to part-time students. Students make repayment arrangements with the financial institution. Under the Act, the federal government provides an alternative payment to Quebec, which operates a separate student assistance program. All other provinces complement the federal program with various student assistance programs of their own.

Official languages in education. The federal government provides financial assistance to the provinces and territories in support of the additional costs they incur in the maintenance and development of minority language education and second official language instruction at the elementary, secondary and postsecondary levels. Responsibility for this function lies with the Official Languages in Education Directorate, established within the Department of the Secretary of State in 1970. Contributions under the program are made on the basis of federal-provincial and territorial agreements.

The objectives are to promote, encourage and assist the development and provision of education services in the minority language of each province or territory, and to provide opportunities for Canadians to learn their second official language.

From 1970-71 to 1982-83, contributions were provided through "formula payments" calculated on the basis of enrolment and provincial education costs; and a number of "non-formula" programs of support for specific provincial activities and initiatives. During this period, formula and non-formula contributions by the federal government in support of bilingualism in education totalled \$1.8 billion.

Following an agreement in 1983-84 between the Secretary of State and the Council of Ministers

of Education, Canada (CMEC), new three-year bilateral agreements were negotiated with the provinces and territories; in September 1985, an extension to the agreement protocol covering 1986-87 and 1987-88 was signed. Under the new agreements, the federal contribution toward the additional costs of minority official language and second official language education is provided under five broad expenditure categories: infrastructure support; program expansion and

development; teacher training and development; student support; and capital. Federal contributions to the provinces and to private institutions under these categories for all levels of education amounted to \$200 million in 1986-87.

Total federal expenditures on Official Languages in Education at all levels (including support to individuals and groups, and administration costs) amounted to \$218 million in 1986-87.

Source

4.1 - 4.4 Prepared in Education, Culture and Tourism Division, Statistics Canada.

FOR FURTHER READING

Selected publications from Statistics Canada

- Universities, Enrolment and Degrees, annual. 81-204
- Financial Statistics of Education, annual. 81-208
- Elementary-Secondary School Enrolment, annual. 81-210
- Advance Statistics of Education, annual. 81-220
- Community Colleges and Related Institutions, Postsecondary Enrolment and Graduates, annual. 81-222
- Education in Canada, a Statistical Review, annual. 81-229
- Teachers in Universities, annual. 81-241
- Minority and Second Language Education, Elementary and Secondary Levels, annual. 81-257
- Postgraduation Plans for Ph. D. Graduates, annual. 81-259. Discontinued, last issue 1984-85.
- Characteristics of Teachers in Public, Elementary and Secondary Schools, annual. 81-202. Discontinued, last issue 1985-86.
- The Changing Education Profile on Canadians, 1961-2000, 102 p., 1980. 81-601. Out of print.
- World School-Age Population: Trends and Implications, 1960 to 2000, 210 p., 1981. 81-603. Out of print.
- School Attendance and Level of Schooling, Canada, Provinces, Urban and Rural, 1981 Census, 319 p., 1984. 92-914
- Population, Language, Ethnic Origin, Religion, Place of Birth, Schooling, Provinces and Territories, 1981 Census, 12 volumes, 1984. 93-925 to 93-936

More information about these publications is available from Statistics Canada. See Appendix F for a complete list of Statistics Canada offices.

TABLES

- .. not available

... not appropriate or not applicable

— nil or zero

-- too small to be expressed
- e estimate

p preliminary

r revised

certain tables may not add due to rounding

4.1 Enrolment in elementary and secondary schools

Type of institution and year	Province or territory						
	Nfld.	PEI	NS	NB	Que.	Ont.	Man.
Public							
1981-82	145,185	26,184	181,758	149,417	1,099,302	1,802,487	200,619
1982-83	142,517	25,723	179,302	147,878	1,074,437	1,788,864	200,453
1983-84	147,603	25,480	177,240	146,045	1,066,133	1,773,478	199,743
1984-85	145,148	25,192	175,168	143,416	1,056,445	1,759,451	199,474
1985-86	142,332	24,996	172,614	141,332	1,041,439	1,769,074	198,937
1986-87	139,378	24,884	170,868	139,465	1,037,174	1,791,919	199,037
Private							
1981-82	269	73	1,757	972	87,759	79,217	8,832
1982-83	258	72	1,791	975	88,386	81,453	9,576
1983-84	339	40	1,758	1,146	90,660	83,643	9,159
1984-85	347	49	1,822	1,208	93,400	86,791	9,222
1985-86	319	58	1,959	1,171	95,303	76,312	9,512
1986-87	324	68	1,923	1,099	97,183	66,279	9,726
Federal ¹							
1981-82	—	37	873	780	3,130	7,405	9,557
1982-83	—	42	959	773	3,219	7,623	10,037
1983-84	—	36	890	732	3,211	7,562	10,205
1984-85	—	34	904	725	3,510	7,545	10,461
1985-86	—	36	914	742	3,698	7,880	10,315
1986-87	—	37	918	786	3,894	7,917	10,301
Schools for the blind and the deaf							
1981-82	120	20	598	—	767	1,051	159
1982-83	111	20	584	—	753	956	169
1983-84	110	15	619	—	728	975	169
1984-85	111	20	615	—	680	896	168
1985-86	106	17	591	—	718	891	140
1986-87	119	15	599	—	728	785	120
Total							
1981-82	145,574	26,314	184,986	151,169	1,190,958	1,890,160	219,167
1982-83	142,886	25,857	182,636	149,626	1,166,795	1,878,896	220,235
1983-84	148,052	25,571	180,507	147,923	1,160,732	1,865,658	219,276
1984-85	145,606	25,295	178,509	145,349	1,154,035	1,854,683	219,325
1985-86	142,757	25,107	176,078	143,245	1,141,158	1,854,157	218,904 ^r
1986-87	139,821	25,004	174,308	141,350	1,138,979	1,866,900	219,184
	Sask.	Alta.	BC	YT	NWT	Canada ¹	
Public							
1981-82	202,094	442,176	503,371	5,121	12,581	4,770,295	
1982-83	201,308	448,496	500,336	4,524	12,760	4,726,598	
1983-84	201,130	448,835	497,312	4,548	12,901	4,700,448	
1984-85	201,892	446,475	491,264	4,697	13,224	4,661,846	
1985-86	202,560	448,339	486,777	4,554	13,444	4,646,398 ^r	
1986-87	202,788	451,419	486,299	4,805	13,296	4,661,332	
Private							
1981-82	2,470	8,598	27,936	—	—	217,883	
1982-83	2,519	10,377	28,280	—	—	223,687	
1983-84	2,636	11,361	29,118	—	—	229,860	
1984-85	2,789	12,462	30,326	—	—	238,416	
1985-86	2,943	13,058 ^r	33,553	—	—	234,188 ^r	
1986-87	3,049	14,286	34,242	—	—	228,179	

4.1 Enrolment in elementary and secondary schools (concluded)

Type of institution and year	Province or territory					
	Sask.	Alta.	BC	YT	NWT	Canada ¹
Federal ¹						
1981-82	6,785	4,200	2,891	—	—	38,890
1982-83	7,048	4,784	3,193	—	—	40,744
1983-84	7,986	4,902	3,079	—	—	41,606
1984-85	8,408	5,206	3,243	—	—	43,022
1985-86	8,330	5,575	3,421	—	—	44,408
1986-87	8,614	5,718	4,033	—	—	45,805
Schools for the blind and the deaf						
1981-82	111	187	160	—	—	3,173
1982-83	109	156	146	—	—	3,004
1983-84	112	138	140	—	—	3,006
1984-85	105	136	127	—	—	2,858
1985-86	96	123	130	—	—	2,812
1986-87	79	107	123	—	—	2,675
Total						
1981-82	211,460	455,161	534,358	5,121	12,581	5,030,241
1982-83	210,984	463,813	531,955	4,524	12,760	4,994,033
1983-84	211,864	465,236	529,649	4,548	12,901	4,974,920
1984-85	213,194	464,279	524,960	4,697	13,224	4,946,142
1985-86	213,929	467,095 ^f	523,881	4,554	13,444	4,927,806 ^f
1986-87	214,530	471,530	524,697	4,805	13,296	4,937,991

¹ Canada total also includes Department of National Defence schools overseas.

4.2 Full-time postsecondary enrolment in community colleges¹

Province or territory	Year	Career programs	University transfer programs	Total
Newfoundland	1983-84 ^f	2,529	—	2,529
	1984-85 ^f	2,898	—	2,898
	1985-86 ^f	2,967	—	2,967
	1986-87	2,945	—	2,945
Prince Edward Island	1983-84	975	—	975
	1984-85	976	—	976
	1985-86	959	—	959
	1986-87	1,016	—	1,016
Nova Scotia	1983-84	2,913	—	2,913
	1984-85 ^f	2,955	—	2,955
	1985-86 ^f	2,932	—	2,932
	1986-87	2,360	—	2,360
New Brunswick	1983-84	2,290	—	2,290
	1984-85	2,280	—	2,280
	1985-86	2,462	—	2,462
	1986-87	2,334	—	2,334
Quebec	1983-84 ^f	79,251	80,651	159,902
	1984-85 ^f	80,227	82,571	162,798
	1985-86 ^f	79,191	85,027	164,218
	1986-87	75,497	87,693	163,190
Ontario	1983-84 ^f	95,810	—	95,810
	1984-85 ^f	96,470	—	96,470
	1985-86 ^f	94,574	—	94,574
	1986-87	95,231	—	95,231
Manitoba	1983-84	3,715	—	3,715
	1984-85	3,719	—	3,719
	1985-86 ^f	3,762	76	3,838
	1986-87	3,621	82	3,703
Saskatchewan	1983-84	2,755	40	2,795
	1984-85	2,885	42	2,927
	1985-86	3,012	39	3,051
	1986-87	2,972	47	3,019

4.2 Full-time postsecondary enrolment in community colleges¹ (concluded)

Province or territory	Year	Career programs	University transfer programs	Total
Alberta	1983-84	19,334 ^f	3,268	22,602 ^f
	1984-85	20,298	3,553	23,851
	1985-86 ^f	20,822	3,298	24,120
	1986-87	21,133	3,477	24,610
British Columbia	1983-84	12,659	10,002	22,661
	1984-85	12,988	9,500	22,488
	1985-86	13,312 ^f	9,616 ^f	22,928
	1986-87	13,249	9,724	22,973
Yukon	1983-84	39	19	58
	1984-85 ^f	63	34	97
	1985-86 ^f	71	17	88
	1986-87	49	14	63
Northwest Territories	1983-84	84	—	84
	1984-85	112	8	120
	1985-86	130	3	133
	1986-87	128	3	131
Canada	1983-84 ^f	222,354	93,980	316,334
	1984-85 ^f	225,871	95,708	321,579
	1985-86 ^f	224,194	98,076	322,270
	1986-87	220,535	101,040	321,575

¹ Includes related institutions such as hospital schools, and agricultural, arts, and other specialized colleges.

4.3 Enrolment in universities

Province	Year	Full-time			Part-time		
		Under-graduate	Graduate	Total	Under-graduate	Graduate	Total
Newfoundland	1983-84	7,409	618	8,027	3,731	409	4,140
	1984-85	8,629	615	9,244	3,986	523	4,509
	1985-86	9,714	638	10,352	4,092	532	4,624
	1986-87	10,147	681	10,828	4,098	592	4,690
Prince Edward Island	1983-84	1,676	—	1,676	709	—	709
	1984-85	1,720	—	1,720	689	—	689
	1985-86	1,768	—	1,768	781	—	781
	1986-87	1,837	—	1,837	685	—	685
Nova Scotia	1983-84	20,649	1,809	22,458	5,899	1,129	7,028
	1984-85	21,242	1,848	23,090	5,372	1,157	6,529
	1985-86 ^f	21,662	1,920	23,582	5,680	1,163	6,843
	1986-87	21,665	1,961	23,626	5,766	1,155	6,921
New Brunswick	1983-84	13,460	695	14,155	4,315	449	4,764
	1984-85	13,835	689	14,524	3,878	379	4,257
	1985-86	14,239	679	14,918	4,106	415	4,521
	1986-87	14,272	668	14,940	4,430	506	4,936
Quebec	1983-84	87,552	16,312	103,864	95,576	13,222	108,798
	1984-85	91,028	17,628	108,656	98,217 ^f	13,564 ^f	111,781
	1985-86	95,971	17,313	113,284	100,706	14,859	115,565
	1986-87	98,243	18,148	116,391	102,065	15,734	117,799
Ontario	1983-84	162,366	20,753	183,119	85,878	11,965	97,843
	1984-85 ^f	164,684	20,906	185,590	84,346	11,963	96,309
	1985-86	164,007	21,009	185,016	84,882	11,963	96,845
	1986-87	165,655	21,498	187,153	84,153	11,561	95,714
Manitoba	1983-84	18,240	2,413	20,653	12,913	1,663	14,576
	1984-85	18,218	2,419	20,637	12,536	1,566	14,102
	1985-86 ^f	17,955	2,389	20,344	12,473	1,591	14,064
	1986-87	17,515	2,420	19,935	13,047	1,548	14,595
Saskatchewan	1983-84	18,098	1,034	19,132	8,168	677	8,845
	1984-85	18,343	1,111	19,454	8,040	640	8,680
	1985-86 ^f	18,395	1,065	19,460	7,908	741	8,649
	1986-87	19,261	1,274	20,535	8,499	751	9,250
Alberta	1983-84	35,670	4,540	40,210	13,836	2,202	16,038
	1984-85	36,797	4,831	41,628	13,525	2,218	15,743
	1985-86	37,875	4,881	42,756	15,189	2,148	17,337
	1986-87	38,997	5,053	44,050	14,931	2,368	17,299

4.3 Enrolment in universities (concluded)

Province	Year	Full-time			Part-time		
		Under-graduate	Graduate	Total	Under-graduate	Graduate	Total
British Columbia	1983-84	32,231	4,983	37,214	13,779	2,189	15,968
	1984-85	31,642	4,839	36,481	13,279	2,116	15,395
	1985-86	30,835	4,964	35,799	13,879	1,848	15,727
	1986-87	30,678	5,444	36,122	14,028	1,580	15,608
Total	1983-84	397,351	53,157	450,508	244,804	33,905	278,709
	1984-85 ^f	406,138	54,886	461,024	243,868	34,126	277,994
	1985-86 ^f	412,421	54,858	467,279	249,696	35,260	284,956
	1986-87	418,270	57,147	475,417	251,702	35,795	287,497

4.4 Graduate degrees awarded by Canadian universities

Degree and field of study	Region and calendar year					
	Atlantic provinces		Quebec		Ontario	
	1985 ^f	1986	1985 ^f	1986	1985	1986
Master						
Education	374	428	574	513	1,151	1,141
Fine and applied arts	4	8	105	121	88	98
Humanities	78	112	602	595	1,013	1,044
Social sciences	290	335	1,714	1,954	2,805	2,814
Agriculture and biological sciences	62	54	121	197	253	287
Engineering and applied sciences	106	101	398	521	673	683
Health professions	27	40	227	305	339	317
Mathematics and physical sciences	53	67	280	336	461	481
Unclassified	—	—	2	—	9	17
Total	994	1,145	4,023	4,542	6,792	6,882
Doctorate						
Education	6	3	43	31	90	100
Fine and applied arts	—	—	4	6	7	4
Humanities	5	13	73	89	132	158
Social sciences	10	6	114	127	199	249
Agriculture and biological sciences	9	13	41	43	112	116
Engineering and applied sciences	12	12	69	66	136	152
Health professions	8	6	54	67	60	74
Mathematics and physical sciences	24	26	96	84	174	182
Unclassified	—	—	5	1	3	5
Total	74	79	499	514	913	1,040
	Western provinces		Canada			
	1985 ^f	1986	1985 ^f		1986	
			M %	F %	M %	F %
Master						
Education	822	866	2,921	42	2,948	40
Fine and applied arts	94	91	291	43	318	45
Humanities	319	305	2,012	44	2,056	43
Social sciences	1,065	1,034	5,874	61	6,137	60
Agriculture and biological sciences	269	265	705	62	803	56
Engineering and applied sciences	435	411	1,612	90	1,716	89
Health professions	130	136	723	39	798	35
Mathematics and physical sciences	237	266	1,031	78	1,150	79
Unclassified	7	5	18	72	22	50
Total	3,378	3,379	15,187	58	15,948	57

4.4 Graduate degrees awarded by Canadian universities (concluded)

Degree and field of study	Western provinces		Canada					
	1985 ^f	1986	1985 ^f			1986		
				M %	F %		M %	F %
Doctorate								
Education	75	97	214	62	38	231	49	51
Fine and applied arts	1	4	12	58	42	14	57	43
Humanities	42	30	252	58	42	290	66	34
Social sciences	99	98	422	68	32	480	63	37
Agriculture and biological sciences	86	109	248	75	25	281	77	23
Engineering and applied sciences	61	66	278	94	6	296	97	3
Health professions	53	55	175	74	26	202	65	35
Mathematics and physical sciences	92	118	386	82	18	410	85	15
Unclassified	6	8	14	57	43	14	71	29
Total	515	585	2,001	74	26	2,218	73	27

4.5 Diplomas and certificates awarded by Canadian universities

Level and field of study	Region and calendar year					
	Atlantic provinces		Quebec		Ontario	
	1985 ^f	1986	1985 ^f	1986	1985 ^f	1986
Undergraduate						
Education	80	133	2,360	2,649	214	201
Fine and applied arts	41	35	218	317	51	64
Humanities	16	10	1,706	1,901	256	222
Social sciences	248	224	5,378	6,386	962	916
Agriculture and biological sciences	6	108	41	79	128	103
Engineering and applied sciences	301	307	127	98	547	476
Health professions	112	56	1,212	1,550	132	131
Mathematics and physical sciences	31	15	385	451	45	61
Unclassified	26	38	196	169	—	—
Total	861	926	11,623	13,600	2,335	2,174
Graduate						
Education	—	—	61	118	61	67
Fine and applied arts	—	—	29	8	11	8
Humanities	—	—	48	43	30	25
Social sciences	6	10	537	530	90	75
Agriculture and biological sciences	—	—	15	12	8	2
Engineering and applied sciences	—	3	11	5	28	9
Health professions	2	3	240	276	68	57
Mathematics and physical sciences	—	—	17	20	—	—
Unclassified	—	—	—	—	—	—
Total	8	16	958	1,012	296	243

	Western provinces		Canada					
	1985 ^r	1986	1985 ^r			1986		
				M %	F %		M %	F %
Undergraduate								
Education	494	468	3,148	30	70	3,451	31	69
Fine and applied arts	15	21	325	26	74	437	29	71
Humanities	106	101	2,084	32	68	2,234	33	67
Social sciences	519	526	7,107	47	53	8,052	43	57
Agriculture and biological sciences	211	128	386	82	18	418	64	36
Engineering and applied sciences	—	—	975	91	9	881	92	8
Health professions	79	93	1,535	13	87	1,830	13	87
Mathematics and physical sciences	92	72	553	67	33	599	61	39
Unclassified	36	36	258	34	66	243	36	64
Total	1,552	1,445	16,371	42	58	18,145	39	61

4.5 Diplomas and certificates awarded by Canadian universities (concluded)

Level and field of study	Western provinces		Canada					
	1985 ^r	1986	1985 ^r			1986		
				M %	F %		M %	F %
Graduate								
Education	309	329	431	35	65	514	38	62
Fine and applied arts	—	—	40	30	70	16	50	50
Humanities	15	9	93	26	74	77	31	69
Social sciences	13	3	646	66	34	618	55	45
Agriculture and biological sciences	3	6	26	62	39	20	40	60
Engineering and applied sciences	15	13	54	98	2	30	90	10
Health professions	4	8	314	57	43	344	51	49
Mathematics and physical sciences	3	3	20	80	20	23	74	26
Unclassified	—	—	—	—	—	—	—	—
Total	362	371	1,624	54	46	1,642	48	52

4.6 Bachelor and first professional degrees awarded by Canadian universities

Specialization	Province and calendar year											
	Nfld.		PEI		NS		NB		Que.		Ont.	
	1985	1986	1985	1986	1985	1986	1985	1986	1985 ^r	1986	1985	1986
Agriculture and biological sciences												
Agriculture	—	—	—	—	36	42	—	—	214	202	203	206
Biology	56	92	17	15	297	279	78	103	538	656	911	1,185
Household science	2	—	8	5	76	88	7	8	110	131	350	349
Veterinary medicine	—	—	—	—	—	—	—	—	70	63	121	121
Zoology	4	3	—	—	9	3	—	—	1	3	60	59
Other	29	14	—	—	5	5	12	12	191	249	204	221
Sub-total, agriculture and biological sciences	91	109	25	20	423	417	97	123	1,124	1,304	1,849	2,141
Education												
Education	664	748	37	57	350	387	456 ^f	495	2,715	2,798	4,245 ^f	4,201
Physical education	42	44	—	—	115	133	68 ^f	76	559	641	1,221 ^f	1,297
Sub-total, education	706	792	37	57	465	520	524	571	3,274	3,439	5,466	5,498
Engineering and applied sciences												
Architecture	—	—	—	—	46	41	—	—	180	197	240	252
Engineering	71	86	—	—	249	151	236	232	1,924	2,081	3,317	3,126
Forestry	—	—	—	—	—	—	71	52	48	70	109	97
Other	—	—	—	—	—	—	—	—	20	24	74	54
Sub-total, engineering and applied sciences	71	86	—	—	295	192	307	284	2,172	2,372	3,740	3,529
Fine and applied arts	11	12	4	1	141	144	52	45	945	993	1,130	1,203
Health professions												
Dental studies and research	—	—	—	—	32	36	—	—	145	157	174	172
Medical studies and research	111	105	—	—	90	85	—	—	740	748	676 ^f	650
Nursing	57	79	—	—	108	162	157	87	423	545	604	717
Pharmacy	—	—	—	—	57	55	—	—	196	172	161	148
Rehabilitation medicine	—	—	—	—	54	48	—	—	289	293	301	310
Other	—	—	—	—	—	—	—	—	87	82	100 ^f	95
Sub-total, health professions	168	184	—	—	341	386	157	87	1,880	1,997	2,016	2,092
Humanities												
History	39	51	15	19	123	113	67	80	331	303	872	949
Languages	141 ^r	196	15	23	241 ^r	258	125	145	928	920	2,184 ^f	2,399
Other	23 ^r	44	—	2	172 ^r	202	29	29	1,059	923	1,448 ^f	1,471
Sub-total, humanities	203	291	30	44	536 ^f	573	221	254	2,318	2,146	4,504	4,819

4.6 Bachelor and first professional degrees awarded by Canadian universities (continued)

Specialization	Province and calendar year													
	Nfld.		PEI		NS		NB		Que.		Ont.			
	1985	1986	1985	1986	1985	1986	1985	1986	1985 ^f	1986	1985	1986		
Mathematics and physical sciences														
Chemistry	13	12	5	1	53	79	21	41	181	205	369	388		
Geology	44	43	—	—	97	81	33	21	113	153	328	263		
Mathematics	51	64	4	6	99	107	33	22	350	449	1,219	1,258		
Physics	9	9	6	8	23	17	11	17	128	158	238	261		
Other	65	64	—	—	141 ^f	137	104	152	719	806	1,294	1,211		
Sub-total, mathematics and physical sciences	182	192	15	15	413 ^f	421	202	253	1,491	1,771	3,448	3,381		
Social sciences														
Commerce	119	130	76	85	731	768	357	395	4,350	4,687	3,808	3,689		
Economics	44	24	14	10	88	68	82	68	617	669	2,264	2,189		
Geography	40	59	—	—	15	16	9	14	262	258	870	856		
Law	—	—	—	—	149	149	78	81	827	899	1,382	1,391		
Political science	41	38	2	2	94	122	34	46	549	567	1,106	1,240		
Psychology	66	61	39	52	277	341	136	161	781	831	2,504	2,775		
Social work	37	40	—	—	63 ^f	48	83	83	457	462	426 ^f	382		
Sociology	39	54	15	12	186	192	57	53	368	358	1,345 ^f	1,501		
Other	23	5	6	6	126 ^f	159	11	27	393	309	860 ^f	984		
Sub-total, social sciences	409	411	152	167	1,729	1,863	847	928	8,604	9,040	14,565	15,007		
No specialization	—	—	1	—	234	257	73	61	471	469	6,399	6,255		
Total, degrees	1,841	2,077	264	304	4,577 ^f	4,773	2,480	2,606	22,279	23,531	43,117	43,925		
	Man.		Sask.		Alta.		BC		Canada					
	1985	1986	1985	1986	1985	1986	1985 ^f	1986	1985 ^f		1986			
									M	F	M	F		
									%	%	%	%		
Agriculture and biological sciences														
Agriculture	87	71	88	97	94	104	55	62	777	58	42	784	58	42
Biology	50	60	90	87	177	206	271	319	2,485	51	49	3,002	48	52
Household science	81	118	34	40	74	95	40	63	782	3	97	897	3	97
Veterinary medicine	—	—	64	71	—	—	—	—	255	48	52	255	47	53
Zoology	35	32	—	—	73	92	60	69	242	55	45	261	51	49
Other	36	33	13	36	35	43	64	102	589	52	48	715	55	45
Sub-total, agriculture and biological sciences	289	314	289	331	453	540	490	615	5,130	45	55	5,914	43	57
Education														
Education	715 ^f	749	915	1,043	1,679 ^f	1,775	720	745	12,496	26	74	12,998	26	74
Physical education	87 ^f	108	94	86	272 ^f	277	206	226	2,664	44	56	2,888	47	53
Sub-total, education	802	857	1,009	1,129	1,951	2,052	926	971	15,160	29	71	15,886	30	70
Engineering and applied sciences														
Architecture	—	—	—	—	—	—	45	36	511	73	27	526	66	34
Engineering	256	256	251	259	633	664	451	436	7,388	90	10	7,291	90	10
Forestry	—	—	—	—	37	53	82	91	347	80	20	363	83	17
Other	—	—	—	—	—	—	17	13	111	51	49	91	55	45
Sub-total, engineering and applied sciences	256	256	251	259	670	717	595	576	8,357	88	12	8,271	88	12
Fine and applied arts	168	171	95	81	209	210	281	301	3,036	36	64	3,161	35	65

4.6 Bachelor and first professional degrees awarded by Canadian universities (concluded)

Specialization	Province and calendar year													
	Man.		Sask.		Alta.		BC		Canada					
	1985	1986	1985	1986	1985	1986	1985 ^f	1986	1985 ^f			1986		
										M %	F %		M %	F %
Health professions														
Dental studies and research	25	26	21	22	69	90	39	33	505	77	23	536	74	26
Medical studies and research	113	125	58	60	260 ^f	248	139	140	2,187	59	41	2,161	58	42
Nursing	74	87	92	92	277	299	205	194	1,997	3	97	2,262	3	97
Pharmacy	45	39	49	44	61	68	65	101	634	37	63	627	31	69
Rehabilitation medicine	43	50	31	25	110	118	38	33	866	10	90	877	10	90
Other	—	—	—	—	15 ^f	20	7	3	209	45	55	200	36	64
Sub-total, health professions	300	327	251	243	792	843	493	504	6,398	34	66	6,663	31	69
Humanities														
History	98	127	80	72	104	134	189	207	1,918	56	44	2,055	57	43
Languages	181	174	134 ^f	139	264 ^f	291	522	562	4,735	25	75	5,107	24	76
Other	147	135	163 ^f	147	79 ^f	75	149	144	3,269	49	51	3,172	49	51
Sub-total, humanities	426	436	377	358	447	500	860	913	9,922	39	61	10,334	38	62
Mathematics and physical sciences														
Chemistry	29	25	20	28	43	40	64	76	798	64	36	895	63	37
Geology	42	33	70 ^f	47	175	147	68	59	970	79	21	847	80	20
Mathematics	117	98	30	53	121	152	43	70	2,067	62	38	2,279	64	36
Physics	18	20	12	7	56	51	72	104	573	85	15	652	87	13
Other	229	245	145 ^f	186	229	286	237	264	3,163	73	27	3,351	74	26
Sub-total, mathematics and physical sciences	435	421	277 ^f	321	624	676	484	573	7,571	71	29	8,024	71	29
Social sciences														
Commerce	449 ^f	376	411	430	886 ^f	825	783	816	11,970	59	41	12,201	58	42
Economics	286	312	106	149	252	266	250	326	4,003	66	34	4,081	66	34
Geography	130	115	42	36	119	96	201	198	1,688	60	40	1,648	64	36
Law	80 ^f	85	99	97	221	209	305	312	3,141	55	45	3,223	55	45
Political science	124	143	78	70	151	191	232	226	2,411	61	39	2,645	60	40
Psychology	306	364	143	159	334	422	410	435	4,996	27	73	5,601	25	75
Social work	88	100	73	70	168	142	189	192	1,584	21	79	1,519	20	80
Sociology	222 ^f	236	107 ^f	122	176 ^f	232	174	197	2,689	30	70	2,957	30	70
Other	105 ^f	99	36 ^f	63	61 ^f	61	155	139	1,776	44	56	1,852	41	59
Sub-total, social sciences	1,790	1,830	1,095	1,196	2,368 ^f	2,444	2,699	2,841	34,258	50	50	35,727	49	51
No specialization	273	364	7 ^f	7	133	113	146	162	7,737	42	58	7,688	42	58
Total, degrees	4,739	4,976	3,651	3,925	7,647 ^f	8,095	6,974	7,456	97,569	48	52	101,668	47	53

4.7 Direct sources of funds for education at all levels (million dollars)

Year	Direct sources of funds					Total
	Government			Fees	Other sources	
	Federal ¹	Provincial ¹	Municipal ²			
1978-79 ^t	1,615.4	11,804.2	3,482.5	702.3	574.5	18,179.0
1979-80 ^t	1,651.3	13,139.7	3,695.2	761.3	739.1	19,986.6
1980-81 ^t	1,891.0	14,717.4	3,850.8	872.7	869.5	22,201.6
1981-82 ^t	2,153.0	16,970.9	4,290.9	1,021.2	937.1	25,373.1
1982-83 ^t	2,484.8	19,347.9	4,316.4	1,187.3	955.3	28,291.8
1983-84 ^t	2,749.1	20,368.4	4,717.7	1,314.3	1,009.7	30,159.2
1984-85	2,999.5	21,266.9	5,063.3	1,437.6	1,348.7	32,116.0
1985-86	3,671.1	22,382.0	5,480.5	1,545.2	1,501.1	34,579.9
1986-87	3,852.8	23,888.1	5,959.5	1,599.2	1,473.6	36,773.3

¹ In addition to the direct funding reported here, the federal government also provides indirect support in respect of postsecondary education to provinces and territories under the Federal-Provincial Fiscal Arrangements and Federal Post-Secondary Education and Health Contributions Act, 1977 and under the Official Languages in Education Program. For further information on the financing of these programs, please consult *Financial Statistics of Education* (Statistics Canada Catalogue 81-208).

² Includes local school taxation.

4.8 Expenditures on education by level (million dollars)

Year and level of study	Province or region						
	Nfld.	PEI	NS	NB	Que.	Ont.	Man.
1985-86							
Elementary and secondary	467.3	82.9	682.2	571.3	5,866.8	8,063.2	953.9
Postsecondary							
Non-university	24.4	9.0	37.4	33.8	1,235.3	793.6	55.1
University	137.4	38.7	299.8	176.2	1,787.2	2,529.6	291.1
Vocational training	112.0	19.8	112.2	96.5	552.1	683.8	124.4
Total	741.1	150.4	1,131.6	877.8	9,441.4	12,070.2	1,424.5
1986-87 ^P							
Elementary and secondary	469.3	89.3	705.2	602.1	6,098.3	8,860.6	1,042.2
Postsecondary							
Non-university	26.5	9.5	40.0	32.6	1,317.1	819.4	56.3
University	151.9	29.9	315.9	192.5	1,883.5	2,566.5	302.2
Vocational training	117.2	30.2	117.8	111.2	672.2	761.1	127.7
Total	764.9	158.9	1,178.9	938.4	9,971.1	13,007.6	1,528.4
	Sask.	Alta.	BC	YT	NWT	Overseas and undistributed	Total
1985-86							
Elementary and secondary	897.6	2,155.8	2,051.3	30.6	96.7	27.0	21,946.6
Postsecondary							
Non-university	44.3	307.9	232.4	4.2	6.0	0.8	2,784.2
University	285.3	768.5	607.8	0.9	0.9	111.6	7,035.0
Vocational training	163.3	369.9	350.4	10.2	28.6	190.9	2,814.1
Total	1,390.5	3,602.1	3,241.9	45.9	132.2	330.3	34,579.9
1986-87 ^P							
Elementary and secondary	968.9	2,275.4	2,110.9	34.5	98.7	29.3	23,384.7
Postsecondary							
Non-university	50.8	313.2	249.4	9.6	6.9	0.8	2,932.1
University	291.7	798.7	644.8	0.9	1.2	130.1	7,309.8
Vocational training	176.6	426.6	395.8	17.2	29.9	163.2	3,146.7
Total	1,488.0	3,813.9	3,400.9	62.2	136.7	323.4	36,773.3

4.9 Expenditures¹ on education by level and by direct source of funds (million dollars)

Year, level and direct source of funds	Province or region						
	Nfld.	PEI	NS	NB	Que.	Ont.	
1985-86							
Level							
Elementary and secondary	467.3	82.9	682.2	571.3	5,866.8	8,063.2	
Postsecondary	161.8	47.7	337.2	210.0	3,022.5	3,323.2	
Vocational training	112.0	19.8	112.2	96.5	552.1	683.8	
Total	741.1	150.4	1,131.6	877.8	9,441.4	12,070.2	
Direct source of funds							
Federal government ²	107.9	34.4	165.0	100.1	773.7	997.9	
Provincial governments ²	561.0	108.6	763.9	717.8	7,718.3	6,318.6	
Municipal governments ³	20.2	—	96.9	--	212.0	3,593.7	
Fees and other sources	52.0	7.4	105.8	59.9	737.4	1,160.0	
Total	741.1	150.4	1,131.6	877.8	9,441.4	12,070.2	
Total expenditure related to							
Personal income	% 12.1	10.6	10.1	10.2	9.6	7.6	
Gross Domestic Product	% 11.6	11.4	9.7	9.9	8.7	6.5	
Population	per capita \$ 1,297	1,194	1,299	1,237	1,449	1,340	
Labour force	per capita \$ 3,317	2,571	2,896	2,886	2,969	2,522	
1986-87 ^P							
Level							
Elementary and secondary	469.3	89.3	705.2	602.1	6,098.3	8,860.6	
Postsecondary	178.4	39.4	355.9	225.1	3,200.6	3,385.9	
Vocational training	117.2	30.2	117.8	111.2	672.2	761.1	
Total	764.9	158.9	1,178.9	938.4	9,971.1	13,007.6	
Direct source of funds							
Federal government ²	111.9	32.6	153.0	101.8	813.9	1,067.9	
Provincial governments ²	586.2	118.3	818.1	785.3	8,156.0	6,870.9	
Municipal governments ³	22.0	—	102.8	--	217.7	3,949.4	
Fees and other sources	44.8	8.0	105.0	51.3	783.5	1,119.4	
Total	764.9	158.9	1,178.9	938.4	9,971.1	13,007.6	
Total expenditure related to							
Personal income	% 11.8	10.4	9.9	10.3	9.5	7.6	
Gross Domestic Product	% 11.3	10.8	9.4	9.5	8.3	6.4	
Population	per capita \$ 1,346	1,255	1,350	1,321	1,525	1,427	
Labour force	per capita \$ 3,380	2,657	2,964	3,009	3,096	2,656	
	Man.	Sask.	Alta.	BC	YT and NWT	Overseas and undi- stributed	Canada
1985-86							
Level							
Elementary and secondary	953.9	897.6	2,155.8	2,051.3	127.3	27.0	21,946.6
Postsecondary	346.2	329.6	1,076.4	840.2	12.0	112.4	9,819.2
Vocational training	124.4	163.3	369.9	350.4	38.8	190.9	2,814.1
Total	1,424.5	1,390.5	3,602.1	3,241.9	178.1	330.3	34,579.9
Direct source of funds							
Federal government ²	238.6	200.7	333.0	405.3	17.2	297.3	3,671.1
Provincial governments ²	736.1	763.7	2,237.2	2,302.2	154.6	—	22,382.0
Municipal governments ³	335.3	331.0	732.9	153.3	5.2	—	5,480.5
Fees and other sources	114.5	95.1	299.0	381.1	1.1	33.0	3,046.3
Total	1,424.5	1,390.5	3,602.1	3,241.9	178.1	330.3	34,579.9

4.9 Expenditures¹ on education by level and by direct source of funds (million dollars) (concluded)

Year, level and direct source of funds		Province or region						
		Man.	Sask.	Alta.	BC	YT and NWT	Overseas and undi- stributed	Canada
Total expenditure related to								
Personal income	%	9.0	9.8	9.0	7.0	14.2	...	8.6
Gross Domestic Product	%	7.9	8.0	5.7	6.0	8.9	...	7.2
Population	per capita \$	1,339	1,379	1,534	1,130	2,362	...	1,374
Labour force	per capita \$	2,726	2,830	2,884	2,266	..	...	2,736
1986-87 ^P								
Level								
Elementary and secondary		1,042.2	968.9	2,275.4	2,110.9	133.2	29.3	23,384.7
Postsecondary		358.5	342.5	1,111.9	894.2	18.6	130.9	10,241.9
Vocational training		127.7	176.6	426.6	395.8	47.1	163.2	3,146.7
Total		1,528.4	1,488.0	3,813.9	3,400.9	198.9	323.4	36,773.3
Direct source of funds								
Federal government ⁴		246.7	217.4	357.9	454.5	5.8	289.4	3,852.8
Provincial governments ²		764.5	814.6	2,391.2	2,396.7	186.3	—	23,888.1
Municipal governments ³		363.2	350.3	771.6	177.1	5.4	—	5,959.5
Fees and other sources		154.0	105.7	293.2	372.6	1.4	34.0	3,072.9
Total		1,528.4	1,488.0	3,813.9	3,400.9	198.9	323.4	36,773.3
Total expenditure related to								
Personal income	%	9.1	9.5	9.2	7.0	15.3	...	8.6
Gross Domestic Product	%	8.0	8.7	6.5	6.0	8.9	...	7.3
Population	per capita \$	1,427	1,473	1,606	1,177	2,568	...	1,450
Labour force	per capita \$	2,865	3,005	2,999	2,334	..	...	2,857

¹ Includes operating, capital, student aid and all departmental expenditures.

² See footnote 1, Table 4.7.

³ See footnote 2, Table 4.7.

4.10 Expenditures on elementary-secondary education (million dollars)

Year, type of expenditure and direct source of funds		Province or region					
		Nfld.	PEI	NS	NB	Que.	Ont.
1985-86							
Type of expenditure							
School boards							
Teachers' salaries, including fringe benefits		285.3	47.5	411.3	269.9	2,610.2	4,408.7
Other operating expenses		93.0	21.2	147.5	112.4	1,682.7	2,107.3
Capital and debt charges		34.5	8.8	49.1	2.6	385.3	491.2
Total		412.8	77.5	607.9	384.9	4,678.2	7,007.2
Governmental expenditures on behalf of public schools		46.0	3.5	55.4	178.3	734.1	656.6
Total		458.8	81.0	663.3	563.2	5,412.3	7,663.8
Indian and Inuit schools		—	0.4	5.5	4.3	41.2	58.0
Special education		1	1	1	1.4	11.4	55.9
Private schools		1	1	1	2.4	401.9	285.5
Total		467.3	82.9	682.2	571.3	5,866.8	8,063.2
Direct source of funds							
Federal government ²		--	1.6	12.8	9.8	83.6	110.5
Provincial governments ²		424.2	80.3	553.6	549.9	5,271.2	3,964.3
Municipal governments ³		20.2	—	96.9	--	212.0	3,593.0
Fees and other sources		22.9	1.0	18.9	11.6	300.0	395.4
Total		467.3	82.9	682.2	571.3	5,866.8	8,063.2

4.10 Expenditures on elementary-secondary education (million dollars) (continued)

Year, type of expenditure and direct source of funds	Province or region						
	Nfld.	PEI	NS	NB	Que.	Ont.	
1986-87 ^P							
Type of expenditure							
School boards							
Teachers' salaries, including fringe benefits	..	..	..	..	..	..
Other operating expenses	..	..	..	..	..	..
Capital and debt charges	..	..	..	..	..	..
Total	412.7	83.1	622.5	417.5	4,818.6	7,484.9	
Governmental expenditures on behalf of public schools	42.8	3.5	63.0	176.4	790.8	989.5	
Total	455.5	86.6	685.5	593.9	5,609.4	8,474.4	
Indian and Inuit schools	0.8	0.4	5.7	4.5	42.9	60.4	
Special education	1	1	1	1.4	13.3	61.2	
Private schools	1	1	1	2.3	432.7	264.6	
Total	469.3	89.3	705.2	602.1	6,098.3	8,860.6	
Direct source of funds							
Federal government ²	0.9	1.6	15.2	10.1	88.4	115.5	
Provincial governments ²	431.8	86.5	574.5	587.6	5,468.1	4,454.4	
Municipal governments ³	22.0	—	102.7	—	217.5	3,948.7	
Fees and other sources	14.6	1.2	12.8	4.4	324.3	342.0	
Total	469.3	89.3	705.2	602.1	6,098.3	8,860.6	
	Man.	Sask.	Alta.	BC	YT and NWT	Overseas and undistributed	Canada
1985-86							
Type of expenditure							
School boards							
Teachers' salaries, including fringe benefits	452.8	429.9	1,123.7	1,040.1	60.5	—	11,139.9
Other operating expenses	253.2	239.8	529.7	523.9	29.5	—	5,740.2
Capital and debt charges	59.4	61.7	249.7	170.1	21.2	—	1,533.6
Total	765.4	731.4	1,903.1	1,734.1	111.2	—	18,413.7
Governmental expenditures on behalf of public schools	71.8	75.4	139.7	170.5	14.5	27.0	2,172.8
Total	837.2	806.8	2,042.8	1,904.6	125.7	27.0	20,586.5
Indian and Inuit schools	80.7	68.4	40.7	33.6	1.5	—	334.4
Special education	6.6	5.6	24.2	7.9	0.1	—	129.7
Private schools	29.4	16.8	48.1	105.2	—	—	896.0
Total	953.9	897.6	2,155.8	2,051.3	127.3	27.0	21,946.6
Direct source of funds							
Federal government ²	106.6	91.5	80.3	70.5	1.7	27.0	595.9
Provincial governments ²	455.4	453.9	1,238.5	1,678.2	119.4	—	14,788.9
Municipal governments ³	335.1	331.0	732.3	153.1	5.2	—	5,478.8
Fees and other sources	56.8	21.2	104.7	149.5	1.0	—	1,083.0
Total	953.9	897.6	2,155.8	2,051.3	127.3	27.0	21,946.6
1986-87 ^P							
Type of expenditure							
School boards							
Teachers' salaries, including fringe benefits	..	..	..	..	..	..
Other operating expenses	..	..	..	..	..	..
Capital and debt charges	..	..	..	..	..	..
Total	844.4	782.9	1,994.6	1,820.9	118.8	—	19,400.9

4.10 Expenditures on elementary-secondary education (million dollars) (concluded)

Year, type of expenditure and direct source of funds	Province or region						
	Man.	Sask.	Alta.	BC	YT and NWT	Overseas and undistributed	Canada
Governmental expenditures on behalf of public schools	80.2	90.3	154.3	135.4	13.1	29.3	2,568.6
Total	924.6	873.2	2,148.9	1,956.3	131.9	29.3	21,969.5
Indian and Inuit schools	79.6	71.9	44.3	33.2	1.1	—	344.8
Special education	7.0	5.7	28.3	8.6	0.2	—	148.0
Private schools	31.0	18.1	53.9	112.8	—	—	922.4
Total	1,042.2	968.9	2,275.4	2,110.9	133.2	29.3	23,384.7
Direct source of funds							
Federal government ²	106.5	95.5	85.2	73.8	1.4	29.3	623.4
Provincial governments ²	480.8	493.4	1,311.8	1,722.3	125.3	—	15,736.5
Municipal governments ³	363.0	350.2	770.6	176.9	5.5	—	5,957.1
Fees and other sources	91.9	29.8	107.8	137.9	1.0	—	1,067.7
Total	1,042.2	968.9	2,275.4	2,110.9	133.2	29.3	23,384.7

¹ Confidential.² See footnote 1, Table 4.7.³ See footnote 2, Table 4.7.**4.11 Expenditures on vocational training (million dollars)**

Year and type of training	Province or region						
	Nfld.	PEI	NS	NB	Que.	Ont.	
1985-86							
Human resource training ¹							
Federal government	85.9	15.9	82.0	65.0	441.9	459.2	
Provincial and municipal governments	19.4	2.8	10.0	24.1	64.3	106.8	
Fees and other sources	1.1	0.5	0.4	4.4	22.7	29.8	
Total	106.4	19.2	92.4	93.5	528.9	595.8	
Other ²	3	3	3	3	14.3	70.4	
Private	3	3	3	3	8.9	17.6	
Total	112.0	19.8	112.2	96.5	552.1	683.8	
1986-87 ^D							
Human resource training ¹							
Federal government	88.2	25.8	83.8	65.3	461.4	508.3	
Provincial and municipal governments	22.6	3.0	14.7	37.9	165.3	134.8	
Fees and other sources	1.5	0.7	0.1	5.4	23.7	29.4	
Total	112.3	29.5	98.6	108.6	650.4	672.5	
Other ²	3	3	3	3	12.6	70.3	
Private	3	3	3	3	9.2	18.3	
Total	117.2	30.2	117.8	111.2	672.2	761.1	
	Man.	Sask.	Alta.	BC	YT and NWT	Overseas and undistributed	Canada
1985-86							
Human resource training ¹							
Federal government	78.3	54.5	139.2	191.7	14.2	2.0	1,629.8
Provincial and municipal governments	9.7	45.7	132.3	90.8	6.8	—	512.7
Fees and other sources	2.1	10.3	34.6	32.9	0.1	—	138.9
Total	90.1	110.5	306.1	315.4	21.1	2.0	2,281.4

4.11 Expenditures on vocational training (million dollars) (concluded)

Year and type of training	Province or region						
	Man.	Sask.	Alta.	BC	YT and NWT	Overseas and undistributed	Canada
Other ²	32.2	50.3	61.5	32.3	17.7	155.8	461.2
Private	2.1	2.5	2.3	2.7	—	33.1	71.5
Total	124.4	163.3	369.9	350.4	38.8	190.9	2,814.1
1986-87 ^P							
Human resource training ¹							
Federal government	83.1	65.0	151.9	235.1	2.1	1.2	1,772.2
Provincial and municipal governments	14.7	55.9	176.0	93.8	23.7	—	742.4
Fees and other sources	2.1	13.8	32.4	31.1	0.3	—	140.5
Total	99.9	134.7	360.3	360.0	27.1	1.2	2,655.1
Other ²	25.6	39.3	63.9	33.1	20.0	127.3	416.8
Private	2.2	2.6	2.4	2.7	—	34.7	74.8
Total	127.7	176.6	426.6	395.8	47.1	163.2	3,146.7

¹ Includes training courses purchased by the federal government, capital expenditures, grants for training in industry and allowances to trainees.² Includes nursing assistants, training, trades training in reform schools and in penitentiaries and other training programs within federal and provincial departments, as well as private trades schools.³ Confidential.**4.12 Expenditures on postsecondary education (million dollars)**

Year and type of expenditure	Province or region					
	Nfld.	PEI	NS	NB	Que.	Ont.
1985-86						
Type of expenditure						
Operating						
Community colleges	15.8	8.1	24.6	19.8	892.4	630.3
Universities	115.6	16.3	269.2	145.0	1,434.7	2,165.5
Total	131.4	24.4	293.8	164.8	2,327.1	2,795.8
Capital	10.1	2.0	13.3	19.8	215.8	129.0
Student aid						
Scholarships and awards	7.7	2.9	17.0	12.5	240.3	182.7
Cost of loans ¹	9.9	1.7	12.3	10.4	55.5	81.4
Total	159.1	31.0	336.4	207.5	2,838.7	3,188.9
Other direct departmental expenditures	2.7	16.7	0.8	2.5	183.8	134.3
Total	161.8	47.7	337.2	210.0	3,022.5	3,323.2
Direct source of funds						
Federal government ²	20.6	16.7	67.2	23.9	236.1	391.7
Provincial governments ²	113.4	25.2	185.0	142.9	2,380.5	2,213.6
Municipal governments	—	—	—	—	0.1	0.7
Fees and other sources	27.8	5.8	85.0	43.2	405.8	717.2
Total	161.8	47.7	337.2	210.0	3,022.5	3,323.2
1986-87 ^P						
Type of expenditure						
Operating						
Community colleges	17.5	8.6	24.8	21.6	971.8	671.1
Universities	124.1	19.9	282.7	148.6	1,498.7	2,303.9
Total	141.6	28.5	307.5	170.2	2,470.5	2,975.0
Capital	7.5	5.2	18.6	21.8	239.7	81.3
Student aid						
Scholarships and awards	12.5	3.2	16.4	12.4	243.6	199.1
Cost of loans ¹	11.4	2.0	14.2	12.0	72.4	94.1
Total	173.0	38.9	356.7	216.4	3,026.2	3,349.5

4.12 Expenditures on postsecondary education (million dollars) (concluded)

Year and type of expenditure	Province or region						
	Nfld.	PEI	NS	NB	Que.	Ont.	
Other direct departmental expenditures	5.4	0.5	-0.8	8.7	174.4	36.4	
Total	178.4	39.4	355.9	225.1	3,200.6	3,385.9	
Direct source of funds							
Federal government ²	21.5	4.9	51.6	24.9	255.9	411.8	
Provincial governments ²	128.4	28.3	214.0	159.3	2,518.3	2,243.7	
Municipal governments	—	—	—	—	0.1	0.7	
Fees and other sources	28.5	6.2	90.3	40.9	426.3	729.7	
Total	178.4	39.4	355.9	225.1	3,200.6	3,385.9	
	Man.	Sask.	Alta.	BC	YT and NWT	Overseas and undistributed	Canada
1985-86							
Type of expenditure							
Operating							
Community colleges	36.5	33.0	205.5	180.6	4.7	—	2,051.3
Universities	253.7	234.7	587.7	497.2	—	—	5,719.6
Total	290.2	267.7	793.2	677.8	4.7	—	7,770.9
Capital	9.7	21.8	152.1	60.3	2.5	—	636.4
Student aid	12.4	23.0	87.4	13.8	2.6	22.4	624.7
Scholarships and awards	11.4	8.2	36.6	20.3	0.2	—	247.9
Cost of loans ¹							
Total	323.7	320.7	1,069.3	772.2	10.0	22.4	9,279.9
Other direct departmental expenditures	22.5	8.9	7.1	68.0	2.0	90.0	539.3
Total	346.2	329.6	1,076.4	840.2	12.0	112.4	9,819.2
Direct source of funds							
Federal government ²	50.8	42.2	108.2	132.9	0.7	112.5	1,203.5
Provincial governments ²	241.7	226.2	810.3	511.1	11.3	—	6,861.2
Municipal governments	0.2	0.1	0.4	0.2	—	—	1.7
Fees and other sources	53.5	61.1	157.5	196.0	—	-0.1	1,752.8
Total	346.2	329.6	1,076.4	840.2	12.0	112.4	9,819.2
1986-87 ^P							
Type of expenditure							
Operating							
Community colleges	36.8	34.4	217.7	192.9	5.9	—	2,203.1
Universities	260.5	239.6	611.4	516.1	—	—	6,005.5
Total	297.3	274.0	829.1	709.0	5.9	—	8,208.6
Capital	10.7	30.2	115.7	59.8	7.3	—	597.8
Student aid	14.1	24.6	101.4	13.3	3.4	19.5	663.5
Scholarships and awards	13.2	9.4	58.2	23.4	0.2	—	310.5
Cost of loans ¹							
Total	335.3	338.2	1,104.4	805.5	16.8	19.5	9,780.4
Other direct departmental expenditures	23.2	4.3	7.5	88.7	1.8	111.4	461.5
Total	358.5	342.5	1,111.9	894.2	18.6	130.9	10,241.9
Direct source of funds							
Federal government ²	54.7	42.9	115.1	137.4	0.7	131.6	1,253.0
Provincial governments ²	245.9	240.1	845.1	555.7	17.8	—	7,196.6
Municipal governments	0.2	0.1	1.0	0.3	—	—	2.4
Fees and other sources	57.7	59.4	150.7	200.8	0.1	-0.7	1,789.9
Total	358.5	342.5	1,111.9	894.2	18.6	130.9	10,241.9

¹ Excluding the value (principal) of loans.² See footnote 1, Table 4.7.**Source**

4.1 – 4.12 Education, Culture and Tourism Division, Statistics Canada.

CHAPTER 5

EMPLOYMENT AND INCOMES

CHAPTER 5

EMPLOYMENT AND INCOMES

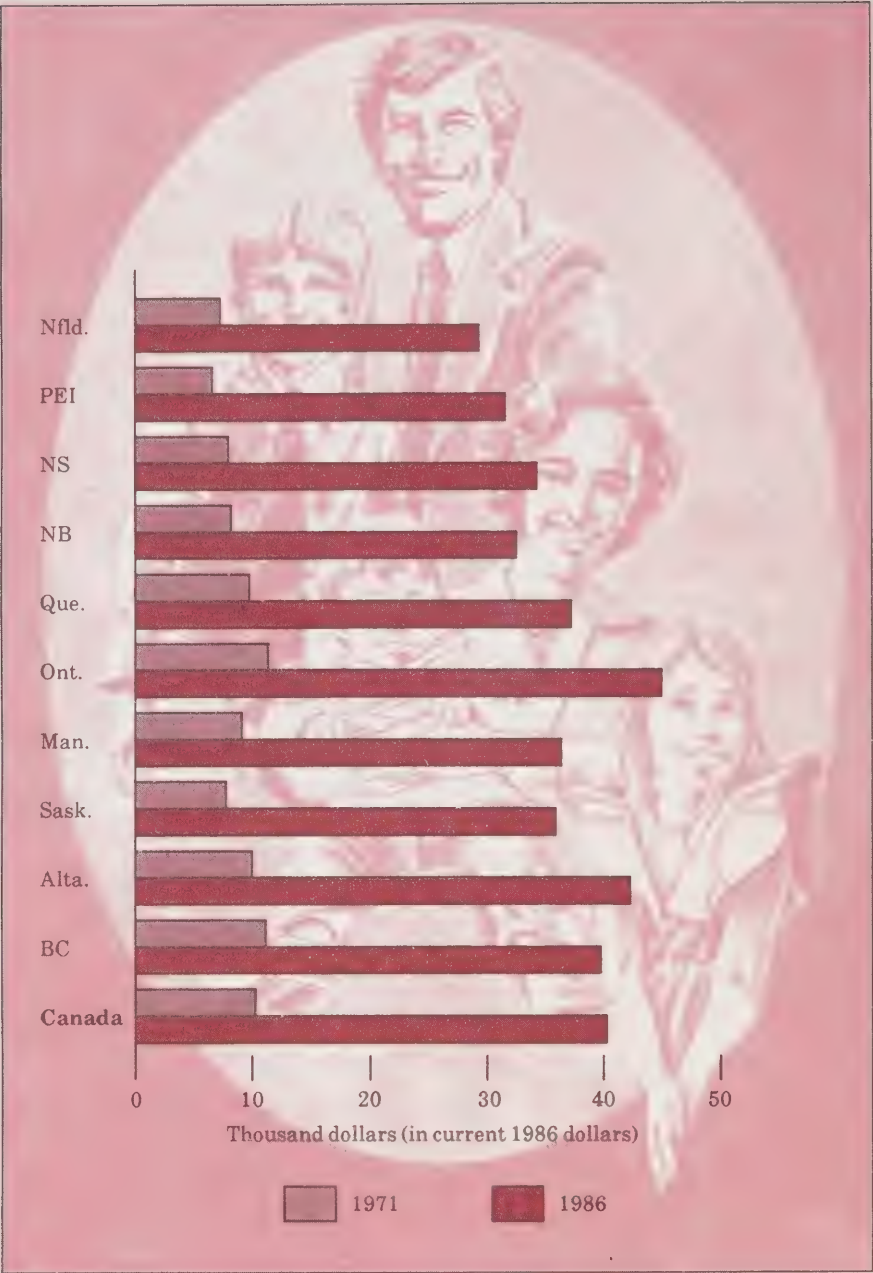
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AVERAGE INCOMES OF FAMILIES

Annual statistics on income distribution provide an important source of information for government and non-government users concerned with development, analysis and evaluation of policy. Based on current dollars for all of Canada, average family incomes increased from \$16,604 in 1975 to \$40,356 in 1986. (These changes do not reflect the decrease in the purchasing power of the dollar.)

CHAPTER 5

EMPLOYMENT AND INCOMES

5.1 Government in relation to employment

5.1.1 Labour Canada

The federal Department of Labour (Labour Canada) was established in 1900 and now operates under the authority of the Department of Labour Act (RSC 1970, c.L-2 as amended by 1980-81, c.60, June 30, 1981). The Minister of Labour is responsible for the Canada Labour Code, in effect since July 1971. It contains sections on labour standards, safety of employees, and industrial relations. The Department administers acts covering fair wages and hours of work, income maintenance for older employees laid off from designated industries, and worker compensation for government employees and merchant seafarers. The Minister reports to Parliament on behalf of the Canada Labour Relations Board, the Canadian Centre for Occupational Health and Safety, the Merchant Seamen Compensation Board and the Labour Adjustment Review Board.

Federal industrial relations legislation applies to employers, employees and trade unions employed on federal works and undertakings, including the interprovincial and international railways; highway transport; telephone, telegraph, and cable systems; pipelines; canals; ferries, tunnels and bridges; shipping and shipping services; radio and television broadcasting, including cablevision; air transport; banks; grain elevators; flour and feed mills, feed warehouses, and grain seed cleaning plants; uranium mines; and the employees of some Crown corporations and agencies.

The Department is responsible for conciliation and arbitration procedures in industrial disputes and for processing certain complaints stemming from alleged violation of legislation. It determines wage rates and hours of work for federal government contracts for construction or supplies, and promotes improved industrial relations through union-management consultation and by preventive mediation through industrial relations consultants. The Department funds practical research on the

human impact of technological change in the workplace, facilitates labour participation in important policy discussions, and makes possible temporary staff exchanges between labour organizations, government departments, and joint labour-management institutions.

Labour Canada strives to secure a working environment conducive to physical and social well-being, a fair return for effort, and equitable access to employment opportunities. Headquarters is in Ottawa. The six regions are served by regional offices in Moncton, Montreal, Ottawa, Toronto, Winnipeg and Vancouver and district offices in other cities. Programs and services to the public include enforcement and regulatory responsibilities, education, training and promotional information. The regional offices respond to complaints, investigate accidents, conduct technical surveys, process claims for worker compensation, provide counselling on labour-management relations, organize information seminars to explain legislation administered by the Department, and sponsor conferences to further departmental goals and objectives.

The Women's Bureau. Since its establishment in 1954, the Women's Bureau has worked to fulfil its mandate of promoting and strengthening, through research, policy development and information, the efforts of women to achieve equality in the workplace. The Bureau monitors women's progress in the paid workforce and researches emerging policy issues. It works with employers, unions, women's groups and the public to promote better working conditions for women. The Bureau also participates in provincial and international efforts to improve the situation of women in the workplace.

Recent research has focused on work and family responsibilities, equal pay for work of equal value, part-time work, technological change, reproductive health hazards in the workplace and international obligations respecting employment standards. Research results and other information is available in the form of publications, video presentations, exhibits, conference sponsorship

and through the services of the Women's Bureau Reference Centre. The Bureau also administers a modest grants program designed to support non-governmental projects dealing with women's employment issues.

In 1987-88, in addition to its regular statistical and legislative publications, the Women's Bureau released the proceedings of a seminar for union representatives on equal pay for work of equal value and the background paper *Equal Pay, Collective Bargaining and the Law* prepared for the same seminar. Two video presentations were also released. *Working for Equality* deals with the role of the Women's Bureau and the situation of women in the labour force from 1954 to 1988. *Sexual Harassment in the Workplace* explores the issue, clarifies misconceptions and provides information on prevention and redress. The Bureau participates in women's business and educational events as part of its ongoing promotional program.

5.1.2 Employment and Immigration Canada

The main objective of Employment and Immigration Canada (EIC) is to further the attainment of national economic and social goals by realizing the full productive potential of human resources, while supporting initiatives of individuals within the public and private sectors to meet their economic needs and in the pursuit of satisfactory work. EIC also administers Unemployment Insurance, immigration and Social Insurance Numbers.

Its activities are carried out in 470 Canada Employment Centres (CECs) and 105 Canada Immigration Centres in 10 regions. As well, services are provided to 187 remote or isolated communities. More than 100 CECs serve students on university campuses and 285 outreach projects provide additional services to clients.

The Canadian jobs strategy programs and services are administered through CECs. The programs focus on workers in need and on the requirements of the labour market, emphasizing small business and entrepreneurship. The flexible programs and services can meet changing regional and local needs and invite innovation.

The Canadian jobs strategy recognizes the shared responsibilities of the federal government, the provinces and the private sector. It is based on a commitment by the government to the provision of equal opportunities for all Canadians, particularly those at a disadvantage in the labour market. These include the four groups designated in the Employment Equity Act: women, persons with disabilities, aboriginal peoples and visible minorities, as well as long-term unemployed persons, young people, workers whose jobs are threatened by labour

market changes and others facing barriers to employment.

The industrial adjustment service provides a forum for employers and employees to solve employment problems. It may help laid-off workers find new jobs, help floundering businesses to recover or seek solutions to economic problems within communities. It also provides a number of other services to employers.

Local advisory councils, working in collaboration with CECs, encourage local business, labour and community groups to meet with government representatives to discuss local employment issues and ways to respond to the needs of local labour market conditions.

The immigration group is responsible for the selection and reception of immigrants who will be able to establish themselves economically, culturally and socially. They include those whose skills are required by the Canadian economy, relatives of Canadian residents and refugees. The immigration group is also responsible for the entry of visitors and for enforcement and control measures to prevent admission of undesirable persons or to have them removed. (See also Chapter 2, Demography.)

All visitors entering Canada to take temporary work must have an employment authorization from a Canadian diplomatic mission outside the country. Most applicants must have a job offer from a Canadian employer, certified by a Canada Employment Centre. This regulation protects the labour force against unwarranted use of foreign labour.

The Unemployment Insurance (UI) program is administered by Canada Employment and Immigration and comprises labour, management and government, the three partners in financing the UI program. Funded by employers and employees, the UI premium account pays for 80% of program costs. Government general revenue pays for the balance.

The Social Insurance Number (SIN) originated in 1964 as a file identifier for the Canada Pension Plan. The Canada Employment and Immigration Commission (CEIC) issues and monitors SIN cards through its central index.

Every worker must have a Social Insurance Number (SIN). It is used as an account number for government administration and on company payrolls. Applicants must provide proof of their identity and their status under the law governing citizens and immigrants. They apply for Social Insurance Numbers through the mail directly to the central index or to Canada Employment Centres across Canada.

5.2 Legislation and regulations

The Canada Labour Code RSC 1985, c.L-2 as amended), which consolidates previous legislation regulating industrial relations, occupational safety and health, and employment standards, applies only to federal undertakings and any other operations that Parliament declares to be for the general advantage of Canada or two or more provinces.

Because it imposes conditions on the rights of the employer and employee to enter into an employment contract, labour legislation is, generally speaking, law in relation to civil rights, and provincial legislatures are authorized to make laws in relation both to local works and to property and civil rights. Power to enact labour legislation has therefore become largely a provincial prerogative; a large body of legislation has been enacted affecting working hours, minimum wages, physical conditions of workplaces, apprenticeship and training, wage payment and wage collection, labour-management relations and worker compensation.

5.2.1 Federal labour legislation

Industrial relations. Part I of the Canada Labour Code regulates the conduct of labour-management relations in federal jurisdiction. The Federal Mediation and Conciliation Service (FMCS) of Labour Canada administers the dispute resolution provisions of the Canada Labour Code. It is responsible for the prevention or settlement of collective bargaining disputes and other types of industrial relations problems in industries and undertakings under federal jurisdiction.

The labour code provides that parties to a collective bargaining dispute must notify the Minister of Labour of any dispute over the negotiation of a collective agreement. The Minister has the option of appointing a conciliation officer, conciliation commissioner, or conciliation board to direct discussions. The legal right to strike or lockout is acquired only if a dispute is not settled when the conciliation process is completed.

If a dispute is not resolved in the first stages, the Minister may appoint a mediator, hoping to avert or resolve a strike or lockout. Both conciliation and mediation efforts rely on persuasion and exploration of available alternatives to assist the parties to resolve their differences. The process differs from arbitration in which a third party makes a binding decision. The Mediation and Conciliation Branch also investigates, on the Minister's behalf, requests for consent to refer bargaining-related complaints to the Canada Labour Relations Board.

The Minister has the authority to appoint industrial inquiry commissions to investigate and make recommendations on labour relations problems affecting an industry or a specific collective bargaining relationship.

The Canada Labour Relations Board determines applications for certification of trade unions as bargaining agents, and deals with successor rights in situations involving merger or amalgamation of unions or sale of businesses. It decides on applications for the termination of bargaining rights based on employee wishes or where bargaining rights were allegedly obtained by fraud. It hears and determines complaints of unfair labour practice against employers, trade unions, or individuals, ordering reinstatement, compensation, or other relief where appropriate. It deals with applications relating to technological change with power to order stay of implementation and opening of negotiations. Where cases are referred by the Minister of Labour, the board may impose the provisions for a first collective agreement. The board processes applications alleging unlawful strike or lockout and has authority to issue cease and desist orders. The board supervises union hiring hall rules and requires trade unions and employer organizations to provide annual financial statements to their members. On the application of a trade union it may order an employer or proprietor to grant union representatives access to employees in remote areas. The board deals with appeals against the decision of a safety officer in situations where imminent danger is alleged and determines complaints alleging that employees have been penalized for exercising rights.

Occupational safety and health. Part II of the Labour Code, promulgated in 1968 and amended in 1978 and 1984, was the first general legislation passed by Parliament to deal exclusively with occupational safety and health. It obliges employers and employees to perform their duties in a safe manner, authorizes regulations to deal with safety and health problems, and provides authority for the establishment of joint labour-management safety and health committees with specific powers. It gives workers the right to refuse to work where their health or safety could be endangered and provides for research into causes and prevention of accidents and for an extended safety education program. Federal public service employees are given the same protection. Since April 2, 1987, the application of the Code has been extended to federal public service employees.

Regulations govern coal mine safety, elevating devices, first aid, machine-guarding, noise control,

hand tools, fire safety, temporary work structures, confined spaces, safe illumination, boilers and pressure vessels, building safety, dangerous substances, electrical safety, materials handling, protective clothing and equipment, sanitation, hours of service in the motor transport industry, occupational safety and health in the uranium mining industry, safety and health committees, and accident investigation and reporting.

Labour standards. Part III of the Canada Labour Code sets minimum standards of employment for employers and employees in industries under the legislative authority of Parliament.

5.2.2 Provincial labour legislation

Industrial relations. All provinces have legislation designed to establish harmonious relations between employers and employees and facilitate settlement of industrial disputes. These laws guarantee freedom of association and the right to organize, provide for labour relations boards or other administrative bodies to certify trade unions as bargaining agents, and require an employer to bargain with the certified union representing its employees. In some jurisdictions, legislation requires that parties comply with conciliation or mediation procedures before a strike or lockout may legally take place. Every collective agreement must provide for settlement, without work stoppage, of disputes arising out of its interpretation or application. Strikes and lockouts are prohibited during the life of a collective agreement, and unfair labour practices are prohibited. In some provinces, labour relations are regulated by separate statutes for groups such as teachers, municipal and provincial police personnel, municipal firemen, hospital workers, civil servants and employees of Crown corporations.

In Alberta, New Brunswick, Newfoundland, Nova Scotia, Ontario and Prince Edward Island, the general labour relations statutes contain special provisions pertaining to collective bargaining in the construction industry. In British Columbia, the accreditation procedure is not limited to this industry. Quebec has a separate law regulating collective bargaining in the construction industry.

5.3 Conditions of work

5.3.1 Employment standards

Hours of work. The labour code sets a standard workday and workweek for employees in undertakings in the federal labour jurisdiction and requires payment of an overtime rate for work done beyond the hours specified. It establishes

a maximum workweek, overtime hours being restricted to eight in a week, except in special circumstances.

The number of hours that may be worked at regular rates of pay are limited to eight in a day and 40 in a week. Hours in excess of these may be worked, provided one and one-half times the regular rate is paid, up to a maximum of 48 hours a week.

Provincial and territorial governments also have legislation governing hours of work of employees under their jurisdiction.

Minimum wage. The labour code sets a minimum rate for employees in the federal industries. This rate may be increased by order of the Governor-in-Council.

Employees paid on other than a time basis, such as pieceworkers and persons paid a mileage rate, must be paid the equivalent of the minimum wage.

An employer who is providing on-the-job training to increase the skill or proficiency of apprentices may be exempted from paying the minimum wage during all or part of the training period.

All provinces and territories have minimum wage legislation. These laws vest authority in a minimum wage board or the Lieutenant Governor-in-Council to set wages. Minimum wage orders are reviewed frequently. In most provinces such orders cover practically all employment. Alberta, British Columbia, Nova Scotia, Ontario and Prince Edward Island have special rates for young workers or students.

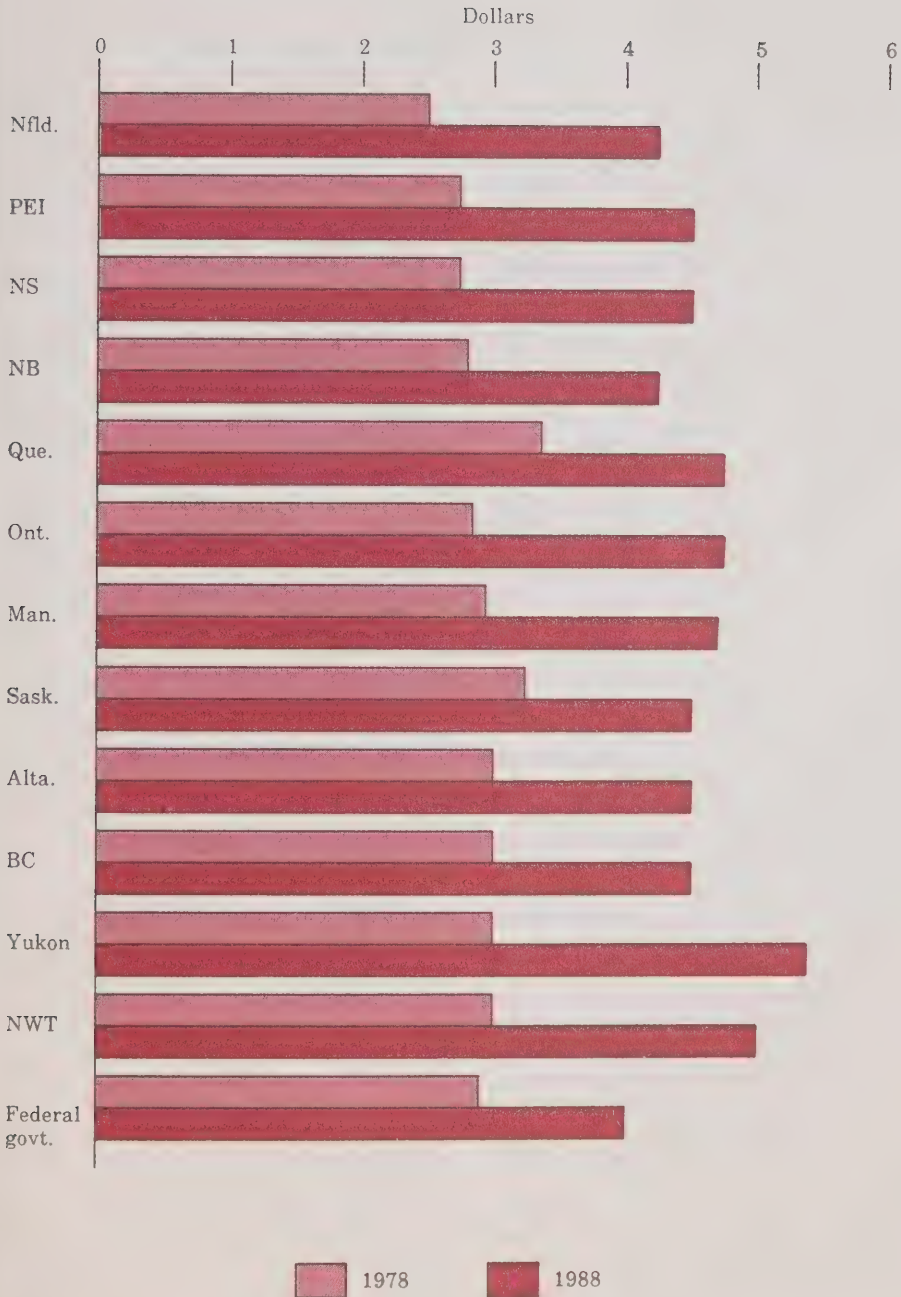
Regulation of wages and hours. In some provinces, the general orders are supplemented by special orders, applying to a particular industry, occupation or class of workers. For example, Quebec has an order governing the retail food trade.

British Columbia has established special rates for domestics, farm and horticultural workers and residential caretakers in apartment buildings. In Alberta, a weekly rate has been set for commercial agents and sales people. In Ontario, special rates apply to servers of alcoholic beverages and domestics and to the construction industry.

In Quebec, certain terms of a collective agreement, including those dealing with hours and wages, may be made binding on all employers and employees in an industry provided the parties to the agreement represent a sufficient proportion of the industry. Approximately 50 decrees are in effect, applying to the garment trades, barbering and hairdressing, garages and service stations, and other industries and services. In construction, working conditions are governed by a decree under the Act respecting labour relations, vocational

Chart 5.1

Minimum wages per hour



training and manpower management in the construction industry.

A construction wages act in Manitoba, applying to both private and public work, sets minimum wage rates and maximum hours of work on the recommendation of a board equally representing employers and employees, with a member of the public as chairman.

Annual vacations. In the federal jurisdiction, the labour code provides for a vacation with pay of at least two weeks for a year of employment and three weeks after six years. Vacation pay is 4% of wages for the year and 6% of annual earnings after six years of employment.

All provinces and territories have annual vacation with pay provisions. The general standard is two weeks. In British Columbia and Northwest Territories, workers are entitled to three weeks after five years of service; in Manitoba, three weeks after four years; in Quebec, three weeks after 10 years; and in Saskatchewan, three weeks after one year and four weeks after 10 years.

General holidays. Legislation deals with paid general holidays in the federal jurisdiction, the two territories and all the provinces. Under the federal jurisdiction there are nine paid general holidays. In the provinces and territories the number varies from three to nine days during the year, when workers have a general holiday with pay.

Maternity leave. Under federal jurisdiction, an employee who has completed six consecutive months with an employer is eligible to take 17 weeks of maternity leave. The period of time in which the leave may be taken begins 11 weeks before the expected date of delivery and ends 17 weeks following the actual delivery date. An additional 24 weeks of child care leave is available to either parent whether natural or adoptive.

All provinces and the two territories have legislation to ensure job security of women workers before and after childbirth. Alberta, Saskatchewan, British Columbia, Quebec and the Northwest Territories (proclaimed October 2, 1988) provide for 18 weeks. Manitoba, New Brunswick, Newfoundland, Nova Scotia, Ontario, Prince Edward Island and Yukon provide for 17 weeks. The leave may be divided into pre- and post-natal leave generally at the discretion of the employee.

Post-natal leave is compulsory in Alberta. In British Columbia, Newfoundland, Nova Scotia and Ontario, it is compulsory, unless a medical doctor authorizes an earlier return to work. In some jurisdictions, an extension of post-natal leave

is allowed where recommended in a medical certificate. In Saskatchewan and the Northwest Territories (proclaimed October 2, 1988), the employer must agree to a shorter period of post-natal leave. In all jurisdictions, the right to maternity leave is supplemented by a guarantee that an employee will not lose a job because of absence on maternity leave.

Six provinces have legislation dealing with paternity and/or adoption leave. In Nova Scotia, a female employee may be granted leave of absence up to five weeks when adopting a child five years old or younger. In Prince Edward Island, a similar provision grants up to six weeks leave of absence without pay to a female employee adopting a child six years old or younger. In Alberta, the new employment standards code (proclaimed November 1, 1988) provides adoption leave of up to eight weeks to either parent upon the adoption of a child under three years of age. In Quebec, an employee may be absent from work without pay for two days at birth or adoption of a child. In Saskatchewan, an employee who has worked continuously for at least 12 months is entitled to six weeks maximum paternity or adoption leave. In Manitoba, paternity leave of up to six weeks and adoption leave of up to 17 weeks are available. All jurisdictions establishing maternity leave, paternity and adoption leave provide for maintenance or accrual of seniority and other benefits.

Human rights. Laws to ensure fair employment practices have been enacted throughout Canada. These include employment-related subjects such as membership in trade unions. All jurisdictions have augmented this legislation to form a human rights code. Most of these codes cover employment, occupancy and property matters, and access to facilities generally available to the public.

Most jurisdictions prohibit discrimination on grounds of race, religion, national origin, colour, sex, age and marital status. In selected cases, the prohibited grounds include political beliefs, ethnic origin, physical handicap, creed, source of income, ancestry, social condition, attachment or assignment of pay, a conviction for which a pardon has been granted, and sexual orientation.

Attention is being paid by the federal government to employment of the handicapped. A special parliamentary committee on the disabled and the handicapped reported its findings in a publication, *Obstacles*, in February 1981. Guidelines have been issued for employment of the handicapped in the federal public service, federal public buildings are being renovated to facilitate access, and the federal government is urging employers in the federal

sector to give equal employment opportunities to the handicapped.

Equal pay provisions exist across Canada. Criteria for determining the meaning of equal work vary from one act to another. Methods of enforcement also vary.

Apprenticeship. All provinces have apprenticeship laws providing for organized on-the-job training and school instruction in designated skilled trades. Statutory provision exists for issuing qualification certificates, on application, to tradesmen in certain trades. In some provinces legislation makes it mandatory for certain classes of tradesmen to hold certificates of competency.

Occupational safety and health. Although both federal and provincial legislatures have the power to enact laws and regulations concerning the protection of workers against industrial accidents or diseases, the provinces have major responsibility. The federal authority is limited to industries under federal jurisdiction. Legal standards and regulations designed to ensure the safety, health and welfare of persons employed in resource, industrial and commercial establishments exist in all jurisdictions.

Safeguards for worker protection are established for fire safety, sanitation, heating, lighting, ventilation, protective equipment, handling of materials, safety of tools, guarding of dangerous machinery, safe handling of explosives and protection against noise and radiation.

Other safety laws and regulations concern hazardous equipment such as boilers and pressure vessels, electrical installations and elevating devices. A growing number govern toxic substances and occupational health hazards. Still others regulate hazardous industries such as mining, construction, demolition and logging.

Safety inspection is provided for in all provinces. Penalties exist where an employer contravenes any provision of an occupational safety and health act or regulation, or fails to comply with a direction made by an inspector. In all jurisdictions, an employee has the right to refuse dangerous work.

5.3.2 Termination of employment

Individual termination. In the federal jurisdiction, an employer who terminates the employment of an employee who has completed three consecutive months of employment has to give that employee two weeks notice in writing or two weeks wages at the regular rate. The code prohibits dismissal, layoff or suspension of an employee due to garnishment or notice of garnishment proceedings. Protection against dismissal is provided to an

employee who is absent due to sickness for 12 weeks or for a longer period if an employee is undergoing treatment and rehabilitation at the expense of a worker compensation authority. Unorganized employees have the right to lay a complaint if they feel they have been dismissed unjustly. The case may be dealt with by adjudication if a satisfactory settlement cannot be otherwise arranged. Nova Scotia protects employees with 10 years service against dismissal without just cause. Quebec does the same for employees with five years service.

All provinces and the Yukon also have legislation requiring an employer to give notice to an individual worker whose employment is terminated.

Group termination of employment. Under federal jurisdiction, an employer must give 16 weeks notice when he terminates the employment of 50 or more employees in one establishment within a four-week period.

At the provincial level, six provinces require an employer to give notice of a planned termination of employment or layoff of a group of employees. In Manitoba, Newfoundland and Ontario, group notice requirements apply when an employer plans to terminate the employment of 50 or more persons within four weeks. Length of notice is related to the number of workers involved. Manitoba requirements are: 50 to 100 employees, 10 weeks; 101 to 300, 14 weeks; over 300, 18 weeks. In Ontario and Newfoundland: 50 to 199 require eight weeks; 200 to 499, 12 weeks; and 500 or more, 16 weeks. In Yukon: 25 to 49, four weeks; 50 to 99, eight weeks; 100 to 299, 12 weeks; 300 or more, 16 weeks. The numbers of employees terminated refer to a period of four weeks. In New Brunswick, when 25 or more employees are terminated, a notice of four weeks must be given if the number of employees terminated represents at least 25% of the employer's workforce. In Nova Scotia, a group notice requirement applies when an employer contemplates dismissal of 10 or more employees within four weeks and in Quebec within two months. Length of notice varies with the number of workers involved: 10 to 99 require two months; 100 to 299, three months; 300 and over, four months.

Severance pay. Under federal jurisdiction an employer who terminates an employee with 12 months service must pay the greater of two days wages for every year of employment, or five days wages. Ontario also provides for severance payments in certain circumstances.

5.3.3 Worker compensation

Federal involvement in worker compensation is limited to areas of direct federal interest which cannot be covered by provincial legislation. The Government Employees Compensation Act covers employees of the public service of Canada and several Crown corporations. The federal penitentiary inmates compensation scheme covers inmates injured during work-related activities. The Merchant Seamen Compensation Act covers seafarers not covered by provincial acts.

Compensation is generally provided to federal government employees for personal injuries sustained during the course of their employment. Compensation is also payable for industrial diseases arising from work.

Claims are largely administered on behalf of the federal government by the provincial worker compensation boards. Benefits are identical to rates set by individual provinces.

Various types of benefits are provided for a worker protected by compensation legislation. Benefits for disability are based on a percentage of average weekly earnings. Persons with a permanent or temporary total disability, presumed not to be able to work at all, receive 75% of gross average weekly earnings (90% of net earnings in Newfoundland, New Brunswick, Quebec, Ontario, Saskatchewan and Alberta) as long as the disability lasts. Partial disablement entitles a worker to proportionate compensation. Medical, hospital and rehabilitation benefits are also provided.

A primary objective of compensation is rehabilitation of the injured worker. Boards may adopt any means considered expedient to help get workers back to work and to lessen any handicap. In British Columbia, Alberta, Saskatchewan and Newfoundland, the boards may also provide counselling and vocational assistance to the dependent spouse of a deceased worker in order to help that person find employment or become self-sufficient.

Except in Nova Scotia, Prince Edward Island and Northwest and Yukon Territories, where monthly payments are fixed by law, benefits to dependents, in fatal cases, are calculated according to the worker's earnings.

5.4 Organized labour

5.4.1 Union membership

As of January 1988, union membership in Canada totalled 3,841,000, an increase of 1.6% from 3,782,000 recorded a year earlier. Union membership represented 36.6% of Canada's non-

agricultural paid labour force in 1988, down from 37.6% in 1987. Union membership as a percentage of the non-agricultural paid labour force has declined continuously since its peak of 40.0% in 1983. This reflects the fact that while the number of union members has increased over the past five years, the number of non-agricultural paid workers has grown more rapidly.

The three major public service unions retained their top ranking in terms of membership, although membership declined in the Public Service Alliance of Canada from 179,900 in 1987 to 175,700 in 1988. The other two public service unions increased their memberships — the Canadian Union of Public Employees from 330,000 in 1987 to 342,000 in 1988, and the National Union of Provincial Government Employees from 278,500 in 1987 to 292,300 in 1988. Membership in the other seven largest unions remained the same or increased over the year.

During the period 1980 to 1988, the number of national unions increased from 128 to 222, and membership from 1.7 million to 2.4 million. At the same time, international unions decreased from 80 to 65, and their membership from 1.6 million to 1.3 million.

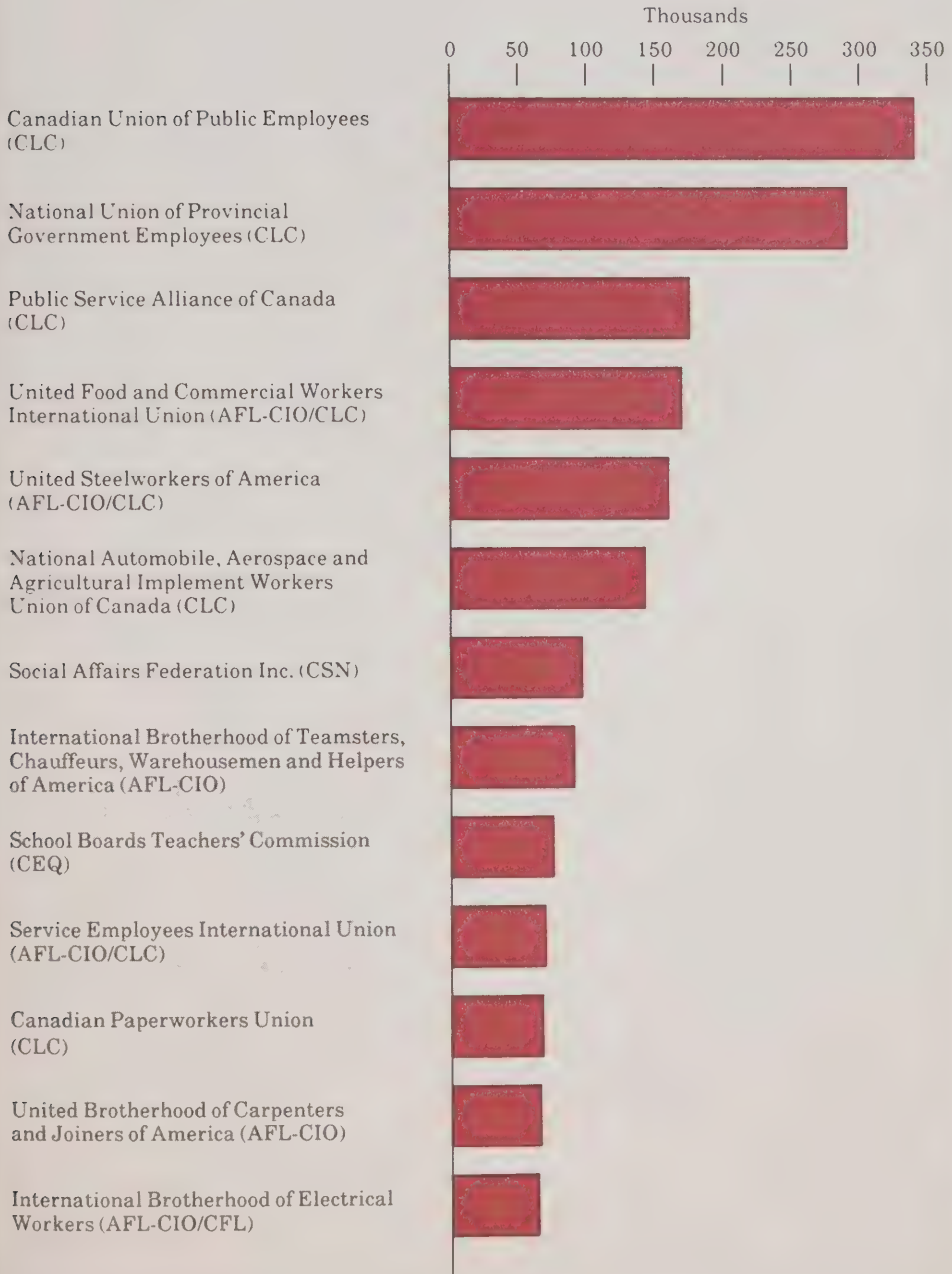
In 1988, CLC's affiliated membership amounted to 2,231,697, an increase of 19,000 from the 1987 total of 2,212,942.

5.4.2 Collective agreements

Labour Canada publishes quarterly base rate settlement data for collective agreements. The agreements covered are limited to negotiating units of 500 or more employees in all industries except construction. The base rate for a negotiating unit is defined as the lowest rate of pay, expressed in hourly terms, for the lowest-paid classification used for qualified workers in the bargaining unit. The wage data are not necessarily representative of the average increases received by the workers in the whole negotiating unit. Nevertheless, the data are aggregated using the total number of employees in the negotiating unit.

Major collective agreements settled in the second quarter of 1988 provided base rate increases averaging 4.5%. The 4.5% increase was the largest since the third quarter of 1983 when increases averaged 6.0%. The second quarter figure largely reflected the impact of a 6.1% average increase to 92,100 construction industry employees, all but 3,050 in Ontario. Settlements covering 213,000 workers in all other industries averaged 3.9%, a figure consistent with quarterly averages of approximately 4% since the first quarter of 1987.

Chart 5.2

Unions with largest membership and affiliation, 1988

5.4.3 Work stoppages

Statistical information on strikes and lockouts in Canada is compiled by Labour Canada on the basis of reports from employment centres, provincial labour departments and other sources. There were 64 major work stoppages in 1987, involving 532,659 workers and 2,402,662 person-days lost. A major work stoppage is defined as one involving 500 workers or more. Corresponding figures for 1986 were 88 work stoppages, 429,401 workers and 5,651,700 person-days lost. As a percentage of the total working time of non-agricultural paid workers, this sharp decline has meant a corresponding decline in the time lost due to work stoppages from 0.22% in 1986 to 0.09% in 1987.

5.5 The labour force

5.5.1 Monthly labour force surveys

Statistics relating to employment and unemployment at national and provincial levels are provided through a Statistics Canada labour force survey, carried out monthly.

The survey sample represents all persons 15 years of age and over residing in Canada except: residents of Northwest Territories and Yukon, persons living on Indian reserves, inmates of institutions and full-time members of the armed forces. Interviews are carried out in approximately 48,000 households chosen by area sampling methods across the country. Estimates of employment, unemployment and non-labour force activity generated from the survey refer to a specific week each month, normally the week containing the 15th day. The labour force is composed of members of the civilian non-institutional population 15 years of age and over who, during reference week, were employed or unemployed.

The employed are defined as all persons who, in the reference week, did any work for pay or profit, either paid work in an employer-employee relationship or self-employment. Included is unpaid family work contributing to the operation of a farm, business or professional practice owned or operated by a related member of the household. It also includes persons who had jobs but were not at work due to illness or disability, personal or family responsibilities, bad weather, labour disputes or other reasons.

The unemployed are those who, in the reference week, were without work, had actively looked for work in the past four weeks and were available for work; had not actively looked for work in the past four weeks but had been on layoff, with

expectation of returning to work, and were available for work; or had a new job to start in four weeks or less and were available for work. Persons not in the labour force are those defined as neither employed nor unemployed.

Recent labour market developments. The Canadian labour force went through a period of significant change from 1981 to 1987. The economy experienced its most severe recession since the 1930s during the period from mid-1981 until the end of 1982. This was followed by a span of continuous recovery throughout the remainder of the 1981-87 period.

In the decade preceding the recession, the labour force grew at a robust rate of about 3.8% per year. The number of women in the labour force increased by 63% during that period; the number of men rose by only 24%. While the number in the labour force rose in all major age/sex categories, the increase was most significant for women aged 25 and over (73.4%). As a result, the difference in the participation rates for men and women (the percentage of persons in the population taking part in the labour force) narrowed from 37.9% in 1971 to 26.7% by 1981.

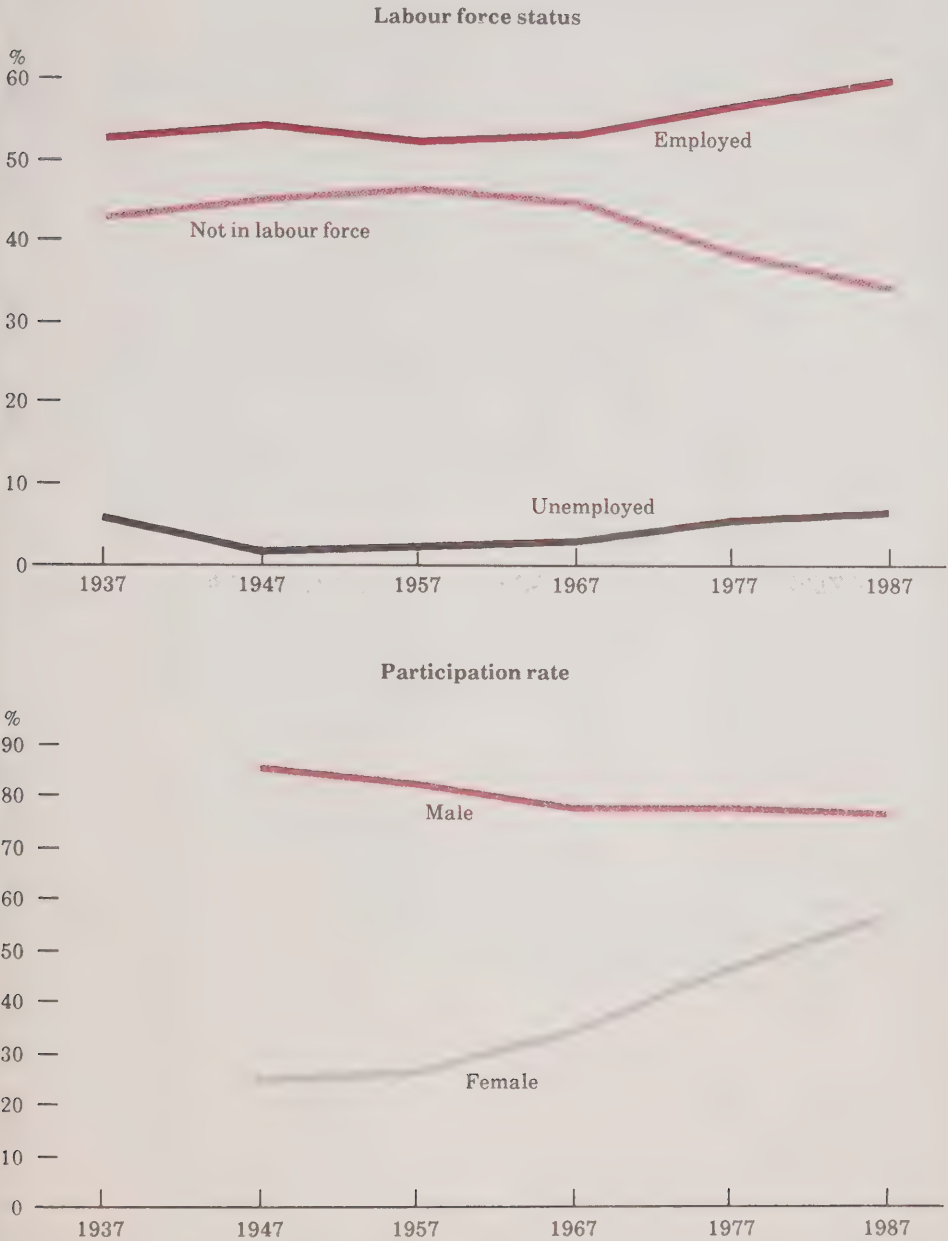
During the economic downturn in 1981-82, the overall size of the labour force remained virtually unchanged, with an increase of 1.5% for women being offset by a decline of 0.3% among men. Employment levels dropped sharply (-3.3%) from 11,006,000 in 1981 to 10,644,000 in 1982. This decrease of 362,000 persons employed came as the result of a decline of 409,000 in the number of persons working full-time while part-time employment rose moderately (47,000). There were employment declines in all sectors with the exception of finance, insurance and real estate and community, business and personal services. The most severely affected industries were the primary industries other than agriculture (-16.1%), manufacturing (-9.0%), and construction (-8.3%).

The recovery, which began in early 1983, continued throughout the period up to 1987. While average employment in 1983 rose only 90,000 (0.8%) over the level in 1982, it maintained a more substantial growth of about 2.8% during the subsequent four years of the recovery. However, some aspects of the recovery have been less than uniform.

Employment increases in service-producing industries have averaged 2.9% per year during the five years of recovery while the goods-producing sectors averaged a more modest 1.4% growth. Construction was the only goods-producing industry that achieved its pre-recession peak by 1987, although only one of the service

Chart 5.3

Selected labour force characteristics



Note: Excludes residents of the Yukon and NWT, Indians on reserves, inmates of institutions and members of the Armed Forces. Includes population aged 15 years and over; prior to 1966, aged 14 years and over.

sectors, transportation, communications and utilities, still remained below its 1981 peak. This increase in service sector employment has resulted in strong growth in part-time employment; its share of total employment reached 15.2% in 1987 compared to 13.5% in 1981. Increases in employment for women accounted for nearly 59% of the overall gains during the recovery period. Across the provinces, the recovery has been stronger in Central Canada, with gains of 14.8% and 15.7% in Quebec and Ontario, respectively. The Atlantic provinces averaged employment growth of 12.3%. Although Newfoundland had a modest 6.9%, Prince Edward Island reached 17.8%, the strongest employment growth for the five-year period. The weakest growth during the period since 1982 occurred in Alberta (1.7%), which did not reach its minimum employment level until 1984; recent recovery has been affected by low world prices for crude petroleum.

Unemployment as a percentage of the labour force reached a peak of 11.9% in 1983. It declined to an average of 8.9% by 1987, still above the rate of 7.5% which was recorded in 1981. The rate for youth aged 15 to 24 stood at 13.7% in 1987, down from the recessionary peak of 19.9%; it was 7.6% for persons aged 25 and over, down from 9.4% in 1983. The unemployment level in 1987 stood at 1,167,000, which was 269,000 above the number of persons without jobs recorded in 1981 but down 281,000 from the peak in 1983.

5.5.2 Other labour market highlights

Statistics Canada regularly adds a series of supplementary questions to the monthly Labour Force Survey (LFS). Although these supplementary surveys cover a wide range of topics, many ask labour-market-related questions, which subsequently provide data dealing with the patterns and characteristics of the labour market. This information can then be analyzed in conjunction with LFS data. The following are highlights from several LFS supplementary surveys:

Labour market activity survey. In 1986, 70% of Canadian women aged 16 to 69 were in the labour force at some time during the year compared with 90% of their male counterparts.

Survey of job opportunities. In March 1986, an estimated 71,000 persons wanted a job but did not seek work because they believed no work was available.

Survey of displaced workers. Between 1981 and 1984, approximately one million workers lost full-time jobs and were not recalled. Over one-third cited plant closure or relocation as the reason for job loss.

Survey of the self-employed. In November 1986, employers and their paid employees accounted for 37% of total employment.

Survey of volunteer activity. Between November 1986 and October 1987, over one in four adult Canadians volunteered their time or skills to groups and organizations across the country.

Absence from work survey. In 1986, nearly one million people were absent from their jobs for at least two consecutive weeks because of illness, accident or pregnancy. More than four out of five of these absent workers received some form of compensation.

5.5.3 Labour force Census data

The Census collects Canadian labour market information once every five years. It is one of Canada's richest data sources and the only survey which provides detailed information on small geographic areas. Census data can be analyzed according to a wide range of socio-cultural and demographic characteristics. For example, the Census provides data on employment by industry and occupation for women, youth or ethnic groups.

The broad range of information available includes some combinations of data that are not readily found in any other single data base. Included in this category are the labour data by presence of children in the home, work activity data in which weeks of employment are classified as either full- or part-time, and employment income by detailed industry and occupation.

Although the type of labour market data collected by the Census may vary slightly from one Census year to the next, there is a great deal of emphasis placed on historical comparability of data in regard to both the labour force concepts and classification systems used. For this reason, Census industry and occupation data can be compared from as far back as the 1961 Census to the most recent Census, 1986.

The 1986 Census was the first mid-decade Census to include labour questions relating to industry and occupation. This was prompted by rapid labour market changes in the Canadian economy and the need to identify these economic trends, as well as provide a "snapshot" of the economy. An increasing reliance on Census data by economists and other labour market analysts has been evident.

Labour force by occupation. Based on 1986 Census data, Canada's experienced labour force grew by 7.3% over the 1981-86 period. The occupational composition reflected a marked shift toward greater specialization in the managerial and scientific areas. Four major occupational

groups made relatively large gains: social sciences and related fields (29%); managerial and administrative occupations (27%); artistic, literary, recreational and related occupations (20%); and occupations in medicine and health (15%).

In contrast, other occupations which experienced declines since 1981 were mining and quarrying (including oil and gas field occupations); processing occupations; machining and related occupations; construction occupations; and handling of materials and related occupations. Clerical, sales, and service occupations remained the largest occupational groups numerically, however, the largest group, clerical occupations, had a rate of growth well below that of the labour force as a whole.

Labour force by industry. Based on 1986 Census data, the labour force in the community, business and personal service industries grew rapidly from 1981 to 1986 (16%), continuing a trend spanning several decades, despite the recession in this period. This increase in the service industry work force represented two-thirds of the total growth in the labour force during the early-1980s. The group accounted for one in every three Canadian workers.

5.6 Employment statistics

5.6.1 Employment, earnings and hours

The Survey of Employment, Payrolls and Hours (SEPH) was introduced in April 1983. This is a sample survey covering firms and organizations of all sizes in all industries except agriculture, fishing and trapping, religious organizations, private households and military personnel. Estimates of the number of employees, average weekly earnings, average weekly hours and average hourly earnings are derived from this survey; the data are based on the 1970 Standard Industrial Classification (SIC) and are not adjusted for seasonal variation nor adjusted for inflation.

Monthly employment estimates relate to the number of employees, both full-time and part-time, drawing pay in the last seven days in the month. Respondents are asked to report gross wages and salaries paid before deductions are made. Reported payrolls represent gross remuneration and paid absences, including salaries, commissions, piecework, and such items as shift premiums, and regularly paid production, incentive and cost of living bonuses. Working owners and partners of unincorporated business and professional practices are excluded.

Changes to the sampling frame were introduced in January 1987. Adjustment factors have been used to remove the estimated impact of these

changes from all year-to-year comparisons referred to in the accompanying text and tables.

Several important changes to the employment, earnings and hours program scheduled for 1989 included the following: the 1980 version of SIC replaced the 1970 version previously in use; data was revised on a consistent basis back to 1983 on the 1980 SIC version to provide better level and trend estimates; and the conversion to a new survey sampling frame database improved coverage and data quality.

Industrial employment. Table 5.14 indicates that, over the 1985-87 period, industrial aggregate employment for Canada rose by an estimated 4.6%. Among industry divisions showing gains, finance, insurance and real estate showed the largest increase (7.6%), followed by community, business and personal services (6.4%) and trade (6.3%). The largest decline over this period was in mines, quarries and oil wells (-9.3%).

Average weekly earnings. The average weekly earnings of all employees at the national industrial aggregate level increased from \$417.13 in 1985 to \$442.74 in 1987 (6.1%). The largest increases were observed in finance, insurance and real estate (12.1%) and forestry (8.6%). (See Table 5.14)

Average weekly hours and average hourly earnings. The average weekly hours (Table 5.15) of employees paid by the hour, who represented approximately half of industrial aggregate employment, have decreased slightly from 32.3 hours to 32.0 hours over the 1985-87 period. At the industry level, the most significant changes noted over this period were in community, business and personal services from 27.2 to 26.8 hours and in forestry, from 38.2 to 39.4 hours.

Average hourly earnings (including overtime) of employees paid by the hour increased from \$10.46 to \$11.03 (5.5%) over the 1985-87 period. Increases were noted in all industry divisions with finance, insurances and real estate (8.9%) and community, business and personal services (7.9%) showing the largest changes.

5.6.2 Labour income

Labour income, comprising wages and salaries and supplementary labour income, is defined as compensation paid to employees residing in Canada and to Canadians who are employed abroad by the federal government. Not included are earnings received by self-employed persons such as independent professionals, proprietors of unincorporated businesses and farmers. Also excluded are military pay and allowances because they are shown as a separate item in the national income accounts.

Wages and salaries include director fees, bonuses, commissions, gratuities, income-in-kind, taxable allowances and retroactive wage payments. Wages and salaries are estimated on a gross basis, before deductions for employee contributions to income tax, unemployment insurance and pension funds. Remuneration accumulating over time, for example, retroactive payments, are accounted for in the month and year of payment.

Supplementary labour income, defined as payments made by employers for the future benefit of their employees, comprises employer contributions to employee welfare and pension funds, worker compensation funds and unemployment insurance.

5.6.3 Help-wanted Index

The Help-wanted Index serves as an indicator of labour market conditions. It is constructed on the basis of the number of help-wanted ads published in the classified sections of 22 metropolitan area newspapers. The data are presented as indices. This means that a current value is compared with a corresponding value in the base-year, currently 1981. The rationale for the Index is that during a period of economic expansion, the demand for labour increases, and employers place help-wanted ads in newspapers to attract workers. Similarly, during a downturn in the economy, the demand for labour decreases, and employers advertise less. Since the need to advertise job openings occurs early in the business cycle, the Index, aimed at measuring these changes, can be considered an early indicator of labour market conditions. The methodology for constructing the Help-wanted Index was revised with the release of 1989 data. The Index is published monthly for Canada and the five regions across Canada. Time-series for these geographic areas (see Table 5.17) are available starting with 1980.

5.7 Income maintenance

5.7.1 Pension plans

Income support for the elderly in Canada is essentially based on a three-tiered system. The first tier is made up of the Old Age Security/Guaranteed Income Supplement program (OAS/GIS) providing flat-rate, universal benefits unrelated to work history. The second tier consists of the contributory Canada Pension Plan and Quebec Pension Plan (CPP/QPP) which is earnings-related and comprehensive in its coverage of all workers in Canada. Employer-sponsored pension plans, also referred to as private pension plans to differentiate them from the public CPP/QPP, con-

stitute the third tier, together with Registered Retirement Savings Plans (RRSPs) and other personal savings. Selected statistics on private pension plans are presented in Table 5.19.

At the beginning of 1986, approximately 46% of all employed-paid workers (including the Armed Forces) were covered by 21,094 private pension plans. (Employed-paid workers do not include unpaid family workers, the unemployed and the self-employed who, by definition, are not eligible for membership in employer-sponsored pension plans.) The members numbered 4,668,381, an increase of 2.3% from 1984 and almost 20% from 1976. Nearly three-quarters of the total increase in membership since 1976 were female.

Employer-sponsored pension plans in the public sector, which numbered 937 in 1986, accounted for only 4.4% of all plans but covered almost 45% of all plan participants.

Two different methods are used to calculate retirement benefits in private pension plans: the defined contribution method and the defined benefit method. In the former, the employer and, in contributory plans, the employee are committed to a specified contribution rate. In defined benefit plans, the employer's contributions are not fixed but they depend on the cost of providing the promised benefit. Defined benefit plans constituted 39% of the total plans in 1986 but covered the vast majority (92%) of the membership. Only 7% of the plan participants were in defined contribution plans.

A pension plan must be funded through a contract with an insurance company, a trust arrangement or an arrangement administered by either the federal or provincial government. At the beginning of 1986, 19 plans, accounting for 15% of all plan participants, operated under the latter arrangement. Almost three-quarters of all plans were funded with insurance companies but they were primarily small plans, covering only 14% of all members. Trust arrangements, on the other hand, were used by 25% of all plans, covering over two-thirds of the membership.

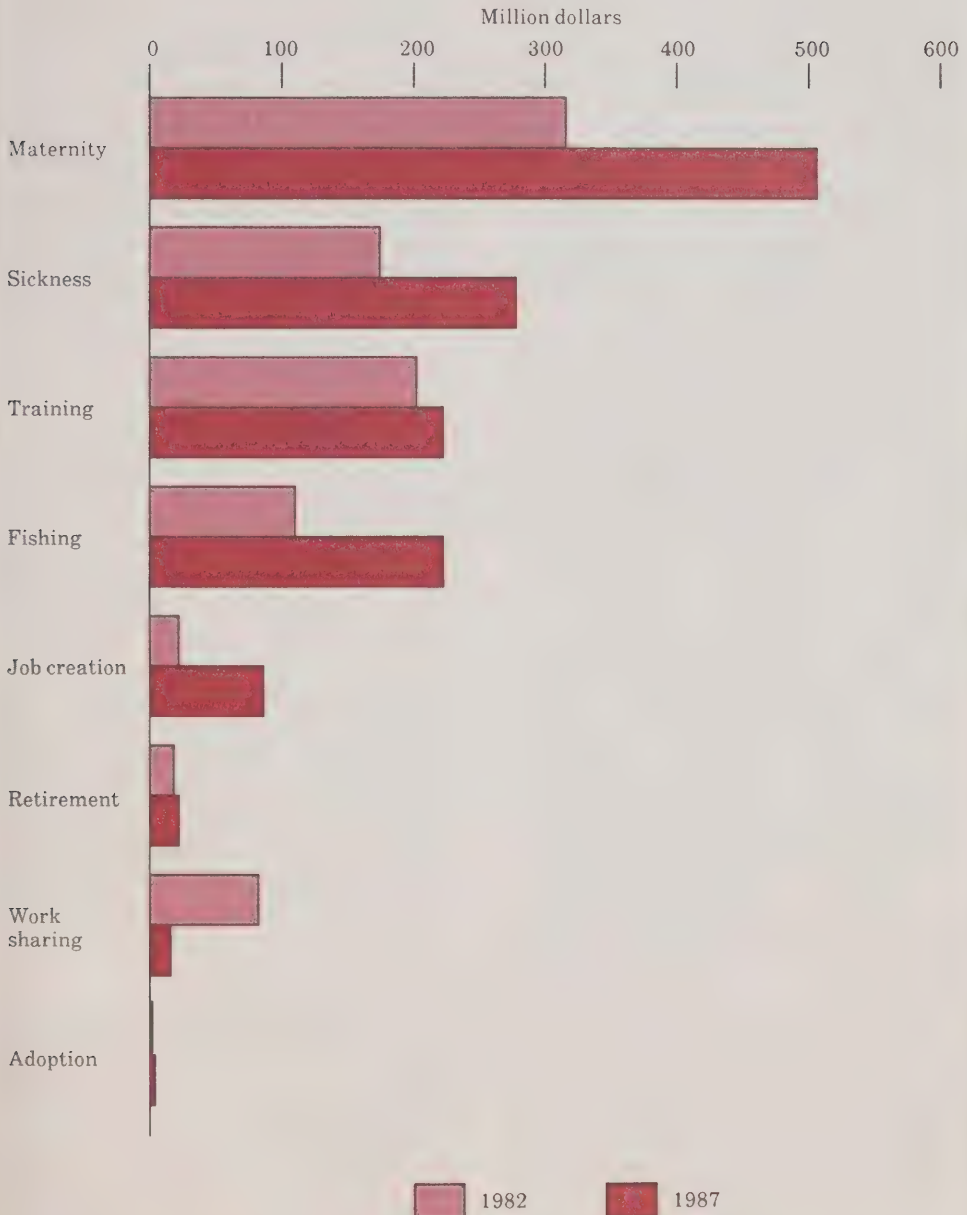
At the end of 1986, the book value of the assets of trustee pension funds accounted for \$127.3 billion. The distribution of these assets among the various investment vehicles as well as the income and expenditures of the funds can be seen in Table 5.20.

Additional information on pension plans is provided in Chapter 6, Social security.

5.7.2 Unemployment Insurance

One important Canadian income support program is the Unemployment Insurance program.

Chart 5.4

Unemployment Insurance benefit payments
(excluding regular payments)

In 1987 alone, over \$10.4 billion was paid to approximately 3.1 million persons who experienced some interruption in their employment income. This compares, for example, with disbursements of \$4.4 billion in 1980. To provide some perspective, during the fiscal year 1985-86, a total of \$45.4 billion was paid in Canada through income security programs. Of this amount, 22.3% was distributed through Unemployment Insurance payments, 19.5% through the Old Age Security Program and 14.9% through the Canada and Quebec pension plans.

The Unemployment Insurance Act of 1971 covers virtually all paid workers in the labour force as well as members of the armed forces. The main exceptions are persons 65 years of age and over and individuals who work fewer than 15 hours per week and who earn less than 20% of the maximum weekly insurable earnings (respectively, \$113 and \$565 in 1988).

After a qualifying period, usually the 52 weeks immediately preceding the claim, workers may be eligible to receive unemployment insurance benefits if they experience a loss of earnings. They may apply for regular benefits if they experience a layoff or for special benefits in case of sickness, birth or adoption of a child or retirement. In addition, there are fishing, job creation and work-sharing benefits.

On average, 1,033,000 persons received Unemployment Insurance benefits each month in 1987, down 17.2% or by 215,000 beneficiaries from 1983. Over the same period, average weekly benefits rose from \$152.72 to \$190.28 or by 24.6%. (See Tables 5.24 and 5.25.)

The Unemployment Insurance statistics are obtained from Employment and Immigration Canada. The data which are released monthly include information on claims received, benefits paid, disqualifications, beneficiaries and persons covered by Unemployment Insurance.

5.7.3 Compensation payments

Fatal occupational injuries and illnesses. Data on fatal occupational injuries and illnesses compiled by Labour Canada are collected from provincial worker compensation boards. From 1976 to 1987, an annual average of 969 industrial workers sustained fatal injuries and illnesses. Of 665 fatality reports received in 1987 (excluding Quebec), collisions, derailments or wrecks caused 131 deaths; being struck by or against an object, 120; falls and slips, 59; drowning, 41; being caught in, on or between objects or vehicles, 47; occupational illnesses, 120; fire, explosion, temperature extremes, 17; and the remaining 130 resulted from miscellaneous accidents (Tables 5.21 to 5.23).

5.7.4 Work injuries statistics

Over one million Canadians are injured every year in work-related accidents. About half of these injuries are sufficiently severe that employees need to take time off work to recuperate. In 1986, there were 586,718 work-related injuries in Canada for which time-loss or permanent disability claims were accepted by provincial Workers' Compensation Boards. Data on these injuries are supplied by the Boards under the aegis of the National Work Injuries Statistics Program.

In 1986, most injuries involved the back (27%); followed by the wrist, hand or finger(s) (22%); and the ankle, foot or toe(s) (10%). The most frequent types of accident were overexertion (30%), struck by an object (19%), and falls (16%). In terms of physical characteristics, or their nature, 48% of the injuries involved sprains and strains, and 17% resulted from contusions, crushing or bruising. The most common sources of injuries were working surfaces such as floors, ramps and platforms (13%), and voluntary and involuntary motions (11%).

5.8 Family incomes

Annual statistics on income distribution for families and individuals are derived from the Survey of Consumer Finances. The data are an important source of statistical information for government and non-government data users concerned with the development, analysis and evaluation of policies and programs related to the economic well-being of Canadians.

5.8.1 Family and income concepts

The survey, with a sample of approximately 31,500 dwellings, excludes residents of Yukon and Northwest Territories, and persons living in institutions, on Indian reserves and in military camps. A wide variety of tabulations are published for different units (households, families, individuals). Special tabulations and public use microdata files are available on a cost-recovery basis.

The following definitions are applicable to the tabulations presented.

Family. A group of individuals sharing a common dwelling unit and related by blood, marriage or adoption. This is often referred to as an economic family and is a broader definition than that employed by most demographic studies and the Census in which a family is restricted to a married couple with or without unmarried children or a parent with unmarried children.

Unattached individual. A person living alone or in a household where he or she is not related to other household members.

Income. Money income received from all sources before payment of taxes and such deductions as pension contributions and insurance premiums. This income may be composed of: wages and salaries; net income of self-employment such as partnership in unincorporated businesses, professional practice and farming; investment income including interest, dividends and rents; government transfer payments, such as family allowances and old age security; and alimony. It does not include the value of farm products produced and consumed on the farm. The survey income concept differs from that used in the calculation of income tax since it includes such non-taxable money income as the Guaranteed Income Supplement and social assistance payments.

Low income cut-offs are used to delineate low income family units from other family units. These cut-offs were determined separately for families of different sizes and living in areas of different degrees of urbanization, based on 1978 family expenditure data. The cut-offs were selected on the basis that families with incomes below these limits usually spent 58.5% or more of their income on food, shelter and clothing and were considered to be in straitened circumstances. The cut-offs were reviewed in light of more recent family expenditure data and a revision was not warranted. Although Statistics Canada low income cut-offs are popularly referred to as "poverty lines", they have no official status and are not promoted as such by Statistics Canada.

5.8.2 Income trends, 1975-86

Tables 5.26 and 5.27 present family incomes in Canada over a period of years. The first part of Table 5.26 shows that the average income (in current dollars) rose from \$16,604 in 1975 to \$40,356 in 1986, but these changes do not reflect the decrease in the purchasing power of the dollar. The second part of Table 5.26 and Table 5.27 take this into account and give the average income in constant 1986 dollars.

In 1986, average family incomes ranged from approximately \$30,000 (Newfoundland, \$29,446) to over \$45,000 (Ontario, \$45,078). Both Ontario and Alberta had average family incomes above the national average.

Table 5.29 presents historical quintile data for families, unattached individuals and all units (families and unattached individuals combined). In 1986, the upper 20% of all families (those with incomes in excess of \$56,703) received 39.4% of income, while the lowest 20% (incomes below \$18,977) received 6.3%. The median or mid-point income was \$36,042.

Table 5.30 indicates the incidence of low income among families and unattached individuals and compares selected characteristics of families and unattached individuals with low income vis-à-vis those with higher incomes. In 1986, the incidence of low income among families (or the percentage of families below the low income cut-offs) was 12.3% and among unattached individuals it was 34.3%.

By age and sex of head, families headed by females under 65 years of age (the majority of them single-parent families) had the highest incidence of low income at 42.0% among all families; for unattached individuals, females over 65 years of age had the highest rate at 46.1%.

5.9 Family spending

Household surveys of family spending provide consumer information that can be related to characteristics such as geographic location, family size and income level. A primary use of such surveys is to provide information for constructing, reviewing and revising the weights of the Consumer Price Index. Initially these small-scale sample expenditure surveys, carried out in selected Canadian urban centres since 1953, were designed to follow changes in the patterns of a well-defined group of middle-income urban families known as the "target group" of the Consumer Price Index. Demand for expenditure statistics to serve other needs of government, business, welfare organizations and academic research has resulted in a widening in the scope and size of the surveys.

The most recent survey, carried out in February and March 1987, refers to calendar year 1986.

5.9.1 Family (spending unit) concept

In the family expenditure surveys, the family or spending unit is defined as a group of persons dependent on a common or pooled income for major items of expense and living in the same dwelling, or one financially independent individual living alone. In most cases, the spending units of two or more are persons related by blood, marriage or adoption, and are thus consistent with the economic family definition used in surveys of family income. However, there are far fewer unattached individuals on the spending unit basis, since many unrelated persons form multi-person spending units. In fact, overall, the spending unit is much closer to a household. For 1986 only about 1% of households had more than one spending unit.

5.9.2 Family expenditure patterns

Income is the most influential of all factors bearing on most items of family spending.

Expenditure trends, 1969-86. Between 1969 and 1986 eight surveys of family expenditures were conducted. Of these, four had near national coverage — including both urban and rural areas in the 10 provinces — while the other four covered only a group of selected cities. Since the selected cities are also identified in the national surveys, two sets of expenditure trends can be identified: a national series and a selected city series. Patterns of family expenditures on a national basis are shown in Table 5.31, while patterns on a selected city basis are shown in Table 5.32. Three broad conclusions can be drawn from Tables 5.31 and 5.32: over the 17-year period, changes in average spending patterns were quite marked; variation in spending patterns for a given year across income groups was even more marked; and given income, spending patterns based on those families and unattached individuals living in selected major cities were not very different from the patterns derived on a national basis.

Some qualifications, following, with respect to these conclusions are necessary. Based on the national series, over the 17-year period, the share of total expenditure spent on food fell from 18.9% to 14.2%, clothing from 8.8% to 6.3%, and health care from 3.4% to 1.8%; while the share for recreation rose from 4.1% to 5.0%, miscellaneous from 1.6% to 2.6% and personal taxes from 12.6% to 18.5%. A similar set of changes was evident in the selected city series.

Across year variation in expenditure patterns was, however, small in relation to between-income-group variation in a particular year. Tables 5.31 and 5.32 show this variation by broad income classes for 1986. Both show that the share for food and shelter was halved, going from the lowest to the highest income group, from 23% to slightly over 11% for food and for shelter, from 32% to about 12%, while the share for personal taxes increased from less than 1% to about 27% of total expenditure.

Differences in patterns of expenditure within the same income class between the selected city and national series were, however, very small except for shelter and transportation. For shelter the share of total expenditures for those living in the selected cities was higher than nationally and more particularly in the lower income groups,

whereas for transportation the share was lower in the selected cities and again particularly in the lower income groups.

Other factors were involved in all of these comparisons. For example, average family size fell throughout most of the period, it was higher in each successive income group, and within the same income group it was lower in the selected cities than nationally. The average age of head of family has not changed much over time, but it does vary across income classes. Incidence of home and automobile ownership also varies widely across income groups, and within income groups is lower for the selected cities than nationally, particularly in the lower income classes.

The expenditure patterns also reflected increases in real incomes and differences in price changes between expenditure groups. Over the 17-year period average incomes as reported in the survey of consumer finance rose by 438%, whereas average prices as measured by the all items Consumer Price Index increased 333%. Real incomes thus increased by about 31%, but mostly in the period up to 1976. Differences in price changes between groups were also quite marked. Average food prices, for example, were 381% higher in 1986 compared to 1969, whereas the average prices of clothing goods and services had increased only 235%. The latter, at least partially, explained the apparent fall in the expenditure share for clothing.

Tables 5.31 and 5.32 show the expenditure patterns in a summary form, while many of the more interesting changes appear in more disaggregated series. For example, within food, purchases from restaurants took an increasing share of total expenditure over the period and, unlike food purchased from stores, tended to be either a fairly constant share across income groups or even a slightly rising trend. The share for energy categories, on the other hand (fuel, electricity and gasoline), which were subject to some of the highest price increases, were also influenced by conversion and conservation measures, and did not change very much. Other changes included the high expenditures on child care.

More detailed information is provided in the *Family Expenditure in Canada* publications and in unpublished tables.

Sources

- 5.1.1, 5.2 – 5.4 Information Services, Bureau of Labour Information, Labour Canada.
- 5.1.2 Public Affairs, Canada Employment and Immigration Commission.
- 5.5.1 Household Surveys Division, Statistics Canada.
- 5.5.2 – 5.5.3 Labour and Household Surveys Analysis Division, Statistics Canada.
- 5.6.1 – 5.7.2 Labour Division, Statistics Canada.
- 5.7.3 Occupational Safety and Health Branch, Department of Labour.
- 5.7.4 – 5.9 Household Surveys Division, Statistics Canada.

FOR FURTHER READING**Selected publications from Statistics Canada**

- The Labour Force, monthly. 71-001
- Historical Labour Force Statistics, Actual Data, Seasonal Factors, Seasonally Adjusted Data, annual. 71-201
- Annual Report of the Minister of Supply and Services Canada under the Corporations and Labour Unions Returns Act. Part II, Labour Unions, annual. 71-202
- Help-wanted Index, annual. 71-204
- Women in the Workplace: Selected Data, 78 p., 1987. 71-534
- Labour Force Research Series, 1982-. 71-601
- Employment, Earnings and Hours, Preliminary Data, monthly. 72-002
- Estimates of Labour Income, quarterly. 72-005
- Trusteed Pension Funds, Financial Statistics, annual. 74-201
- Pension Plans in Canada, biennial. 74-401

More information about these publications is available from Statistics Canada. See Appendix F for a complete list of Statistics Canada offices.

TABLES

- .. not available

... not appropriate or not applicable

— nil or zero

-- too small to be expressed
- e estimate

p preliminary

r revised

certain tables may not add due to rounding

5.1 Labour force characteristics, annual averages, 1982-87

Year	Population ¹ '000	Labour force '000	Employed '000	Unemployed '000	Participation rate %	Unemployment rate %
1982	18,664	11,958	10,644	1,314	64.1	11.0
1983	18,917	12,183	10,734	1,448	64.4	11.9
1984	19,148	12,399	11,000	1,399	64.8	11.3
1985	19,372	12,639	11,311	1,328	65.2	10.5
1986	19,594	12,870	11,634	1,236	65.7	9.6
1987	19,825	13,121	11,955	1,167	66.2	8.9

¹ Persons 15 years of age and over, excluding inmates of institutions, full-time members of the Canadian Armed Forces, residents of Yukon and Northwest Territories and residents of Indian reserves.

5.2 Employment and unemployment, by sex and age, 1982-87

Age group and sex	Employed					
	1982	1983	1984	1985	1986	1987
Total	100.0	100.0	100.0	100.0	100.0	100.0
Men	58.8	58.1	57.9	57.5	57.2	56.8
Women	41.2	41.9	42.1	42.5	42.8	43.2
Age 15-24	22.5	21.8	21.6	21.1	20.8	20.3
Men	11.6	11.1	11.2	10.9	10.8	10.6
Women	10.9	10.6	10.4	10.2	10.0	9.7
Age 25 +	77.5	78.2	78.4	78.9	79.2	79.7
Men	47.2	47.0	46.7	46.6	46.4	46.2
Women	30.3	31.2	31.7	32.2	32.8	33.5
	Unemployed					
	1982	1983	1984	1985	1986	1987
Total	100.0	100.0	100.0	100.0	100.0	100.0
Men	59.2	59.3	57.3	56.5	55.8	54.3
Women	40.8	40.7	42.7	43.5	44.2	45.7
Age 15-24	42.2	40.0	37.0	35.6	35.1	33.1
Men	25.2	23.8	21.2	20.7	20.1	18.9
Women	17.0	16.2	15.8	14.9	15.0	14.1
Age 25 +	57.8	60.0	63.0	64.4	64.9	66.9
Men	34.0	35.5	36.1	35.8	35.7	35.5
Women	23.8	24.5	26.9	28.6	29.2	31.4

5.3 Employment by sex, age and participation rate, 1982-87

Employed	Annual averages ('000)					
	1982	1983	1984	1985	1986	1987
Total	10,644	10,734	11,000	11,311	11,634	11,955
Men	6,234	6,240	6,367	6,508	6,657	6,793
Women	4,390	4,495	4,633	4,804	4,977	5,161
Age 15-24	2,398	2,337	2,374	2,389	2,417	2,423
Men	1,235	1,196	1,232	1,232	1,258	1,265
Women	1,164	1,141	1,142	1,157	1,159	1,158
Age 25 +	8,245	8,397	8,626	8,923	9,217	9,532
Men	5,019	5,044	5,135	5,276	5,399	5,528
Women	3,226	3,354	3,492	3,647	3,818	4,003
	Participation rate (%)					
	1982	1983	1984	1985	1986	1987
Total	64.1	64.4	64.8	65.2	65.7	66.2
Men	77.0	76.7	76.6	76.7	76.7	76.7
Women	51.7	52.6	53.5	54.3	55.1	56.2
Age 15-24	65.8	66.1	66.8	67.4	68.6	69.2
Men	69.3	69.2	69.9	70.1	71.5	72.0
Women	62.3	62.8	63.6	64.6	65.6	66.3
Age 25 +	63.5	63.9	64.2	64.6	64.9	65.4
Men	79.5	79.1	78.6	78.6	78.2	77.9
Women	48.5	49.6	50.6	51.6	52.4	53.7

5.4 Employment by province, 1982-87

Province	Annual averages ('000)					
	1982	1983	1984	1985	1986	1987
Newfoundland	174	174	176	176	181	186
Prince Edward Island	45	48	49	51	52	53
Nova Scotia	313	320	337	337	344	354
New Brunswick	243	247	248	258	267	277
Quebec	2,584	2,642	2,722	2,804	2,866	2,966
Ontario	4,067	4,096	4,243	4,402	4,555	4,706
Manitoba	454	460	472	480	493	497
Saskatchewan	426	436	439	452	457	458
Alberta	1,132	1,115	1,114	1,123	1,146	1,151
British Columbia	1,204	1,197	1,202	1,228	1,274	1,306
	Participation rate (%)					
	1982	1983	1984	1985	1986	1987
Newfoundland	52.1	52.1	52.9	53.0	53.0	53.1
Prince Edward Island	57.8	60.2	60.2	61.9	62.3	62.8
Nova Scotia	57.0	57.4	59.3	58.8	59.3	59.8
New Brunswick	55.0	55.5	55.1	56.8	57.5	58.3
Quebec	60.0	60.9	61.5	62.2	62.4	63.5
Ontario	67.3	67.1	67.4	68.0	68.5	68.9
Manitoba	64.9	65.6	65.7	65.8	66.4	66.4
Saskatchewan	63.9	65.2	65.1	66.4	66.9	66.7
Alberta	71.4	71.6	72.1	71.9	72.1	72.0
British Columbia	64.3	64.1	64.0	64.3	65.1	65.5

5.5 Unemployment by sex, age and rate, 1982-87

Age group and sex	Unemployed ('000)					
	1982	1983	1984	1985	1986	1987
Total	1,314	1,448	1,399	1,328	1,236	1,167
Men	778	859	802	750	670	634
Women	537	590	598	578	546	533
Age 15-24	555	579	518	473	434	386
Men	331	345	297	275	249	220
Women	224	234	221	198	185	165
Age 25+	759	869	882	855	802	781
Men	447	514	505	475	441	414
Women	313	355	377	380	361	367
	Rate (%)					
	1982	1983	1984	1985	1986	1987
Total	11.0	11.9	11.3	10.5	9.6	8.9
Men	11.1	12.1	11.2	10.3	9.4	8.5
Women	10.9	11.6	11.4	10.7	9.9	9.4
Age 15-24	18.8	19.9	17.9	16.5	15.2	13.7
Men	21.1	22.4	19.4	18.2	16.5	14.8
Women	16.1	17.0	16.2	14.6	13.8	12.5
Age 25+	8.4	9.4	9.3	8.7	8.0	7.6
Men	8.2	9.2	8.9	8.3	7.6	7.0
Women	8.8	9.6	9.7	9.4	8.6	8.4

5.6 Unemployment by province, 1982-87

Province	Annual averages ('000)						Rate (%)					
	1982	1983	1984	1985	1986	1987	1982	1983	1984	1985	1986	1987
Nfld.	35	40	45	48	45	42	16.8	18.8	20.5	21.3	20.0	18.6
PEI	7	7	7	8	8	8	12.9	12.2	12.8	13.2	13.4	13.3
NS	47	49	51	54	53	51	13.2	13.2	13.1	13.8	13.4	12.5
NB	40	43	44	46	45	42	14.0	14.8	14.9	15.2	14.4	13.2
Que.	413	427	400	376	356	341	13.8	13.9	12.8	11.8	11.0	10.3
Ont.	440	474	423	385	342	307	9.8	10.4	9.1	8.0	7.0	6.1
Man.	42	48	43	43	41	40	8.5	9.4	8.3	8.1	7.7	7.4
Sask.	28	35	38	40	38	36	6.2	7.4	8.0	8.1	7.7	7.3
Alta.	95	134	140	126	125	123	7.7	10.8	11.2	10.1	9.8	9.6
BC	166	192	208	203	183	178	12.1	13.8	14.7	14.2	12.6	12.0

5.7 Change in number of employed by occupation group (thousands)

Occupation	1981	1982	Percentage change 1981-82	1986 ¹	1987	Percentage change 1986-87
Managerial, administrative	892	899	0.8	1,390	1,438	3.5
Natural sciences, engineering and mathematics	409	384	-6.1	403	420	4.2
Social sciences	157	174	10.8	191	202	5.8
Religion	26	28	7.7	35	31	8.9
Teaching	457	458	0.2	511	523	2.3
Medicine and health	503	523	4.0	574	603	5.1
Art, literature and recreation	162	159	-1.9	192	223	16.1
Clerical	1,946	1,886	-3.1	1,928	1,992	3.3
Sales	1,132	1,120	-1.1	1,119	1,135	1.4
Service	1,480	1,477	-0.2	1,572	1,581	0.5
Farming, horticultural and animal-husbandry	506	481	-4.9	488	486	-0.4
Fishing, hunting and trapping	33	33	—	36	36	—
Forestry and logging	60	51	-15.0	53	55	0.3
Mining and quarrying	78	61	-21.8	61	55	-9.8
Processing	390	366	-6.2	357	361	1.1
Machining	273	239	-12.5	235	256	8.9

5.7 Change in number of employed by occupation group (thousands) (concluded)

Occupation	1981	1982	Percentage change 1981-82	1986 ¹	1987	Percentage change 1986-87
Product fabricating, assembling and repairing	1,006	913	-9.2	985	969	-1.6
Construction trades	665	595	-10.5	639	687	7.5
Transport equipment operating	413	402	-2.7	434	460	6.0
Material handling	285	257	-9.8	272	293	7.7
Other crafts and equipment operating	134	139	3.7	159	149	-6.3
Occupations, n.e.s.	—	—	—	—	—	—
Occupations not stated	—	—	—	—	—	—
All occupations	11,006	10,644	-3.3	11,634	11,955	2.8

¹ 1986 LFS data coded using the 1980 Standard Occupation Classification System. Data prior to 1984 was coded using the 1971 Standard Occupation Classification System.

5.8 Intended occupations of immigrants

Intended occupation	1984	1985	1986	1987
Workers				
Entrepreneurs	1,032	1,504	1,769	2,515
Management	1,529	1,497	2,201	5,958
Natural sciences	2,059	2,097	2,759	5,290
Social sciences	300	357	431	899
Religion	441	396	442	467
Teaching	1,187	1,263	1,357	1,776
Medicine and health	1,436	1,524	1,888	2,753
Artistic, literary and performing arts	645	707	765	1,184
Sports and recreation	77	87	111	134
Clerical, etc.	3,150	3,087	4,107	7,554
Sales	1,536	1,475	1,770	3,082
Service	5,235	5,279	6,094	7,926
Farming, horticultural and animal-husbandry	1,170	1,050	1,330	1,817
Fishing, hunting, trapping, etc.	65	112	175	208
Forestry and logging	16	20	17	22
Mining and quarrying including oil and gas	56	44	47	42
Processing	785	804	1,066	1,535
Machining, etc.	972	969	1,316	2,429
Product fabricating, assembling and repairing	4,306	4,034	5,143	8,514
Construction trades	1,543	1,660	2,321	4,195
Transport equipment operating	568	591	765	1,103
Material handling and related	330	344	705	1,147
Other crafts and equipment operating	180	183	235	466
Others	—	—	—	—
Not stated	—	—	—	—
Not elsewhere classified	9,882	9,369	11,386	15,691
Total, workers	38,500	38,453	48,200	76,712
Non-workers				
Spouse	14,541	13,041	13,938	19,758
Children	7,087	6,522	7,531	12,531
Others	28,111	26,286	29,550	43,097
Total, non-workers	49,739	45,849	51,019	75,386
Total, immigrants	88,239	84,302	99,219	152,098

5.9 Union membership in Canada, 1960-88¹

Year	Union membership '000	Non-agricultural paid workers '000	Union membership as a percentage of civilian labour force	Union membership as a percentage of non-agricultural paid workers
1960	1,459	4,522	23.5	32.3
1961	1,447	4,578	22.6	31.6
1962	1,423	4,705	22.2	30.2
1963	1,449	4,867	22.3	29.8
1964	1,493	5,074	22.3	29.4

5.9 Union membership in Canada, 1960-88¹ (concluded)

Year	Union membership '000	Non-agricultural paid workers '000	Union membership as a percentage of civilian labour force	Union membership as a percentage of non-agricultural paid workers
1965	1,589	5,343	23.2	29.7
1966	1,736	5,658	24.5	30.7
1967	1,921	5,953	26.1	32.3
1968	2,010	6,068	26.6	33.1
1969	2,075	6,380	26.3	32.5
1970	2,173	6,465	27.2	33.6
1971	2,231	6,637	26.8	33.6
1972	2,388	6,893	27.8	34.6
1973	2,591	7,181	29.2	36.1
1974	2,732	7,637	29.4	35.8
1975	2,884	7,817	29.8	36.9
1976	3,042	8,158	30.6	37.3
1977	3,149	8,243	31.0	38.2
1978	3,278	8,413	31.3	39.0
1979 ²	..	..	..	..
1980	3,397	9,027	30.5	37.6
1981	3,487	9,330	30.6	37.4
1982	3,617	9,264	31.4	39.0
1983	3,563	8,901	30.6	40.0
1984	3,651	9,220	30.6	39.6
1985	3,666	9,404	30.2	39.0
1986	3,730	9,893	29.7	37.7
1987	3,782	10,066	29.8	37.6
1988	3,841	10,483	29.6	36.6

¹ The data for the years prior to 1960 are contained in the 1976-77 report or previous editions.² No survey was conducted in 1979.**5.10 Union membership by congress affiliation, 1988**

Congress affiliation	Membership	
	No.	%
CLC	2,231,697	58.1
(AFL-CIO/CLC)	812,709	21.2
CLC only	1,418,988	36.9
CNTU/CSN	204,637	5.3
CFL/FCT	207,736	5.4
(AFL-CIO/CFL)	205,486	5.3
CFL only	2,250	0.1
AFL-CIO only	224,305	5.8
CEQ	99,114	2.6
CSD	50,379	1.3
CCU	31,407	0.8
CNFIU	3,476	0.1
Unaffiliated international unions	15,386	0.4
Unaffiliated national unions	662,876	17.3
Independent local organizations	110,478	2.9
Total	3,841,491	100.0

5.11 Types of unions, selected years, 1980-88

	Unions					
	1980		1987		1988	
	No.	%	No.	%	No.	%
National	128	17.4	217	29.7	222	26.4
International	80	10.9	67	9.2	65	7.7
Other ¹	526	71.1	446	61.1	553	65.8
Total ²	734	100.0	730	100.0	840	100.0
	Members ('000)					
	1980		1987		1988	
	No.	%	No.	%	No.	%
National	1,703	50.1	2,319	61.3	2,425	63.1
International	1,571	46.2	1,324	35.0	1,266	33.0
Other ¹	123	3.7	138	3.6	150	3.9
Total ²	3,397	100.0	3,782	100.0	3,841	100.0

¹ Includes directly chartered unions and independent local organizations.² Due to rounding, sums may not always equal totals.

5.12 Major work stoppages, involving 500 or more workers, 1977-87

Period	Number beginning during month or year	Work stoppages in existence during month or year			Percentage of estimated working time
		Number	Workers involved	Person-days not worked	
1977	95	102	143,214	1,743,340	0.08
1978	140	142	295,776	5,055,080	0.23
1979	118	125	373,312	5,620,380	0.25
1980	132	135	350,350	6,881,660	0.29
1981	92	100	240,972	6,169,670	0.25
1982	67	67	389,985	3,859,810	0.16
1983	59	61	279,826	2,882,110	0.12
1984	64	67	130,852	2,331,350	0.10
1985	52	56	98,252	1,348,760	0.05
1986	85	88	429,401	5,651,700	0.22
1987	59	64	532,659	2,402,662	0.09
1988					
January	3	5	13,369	75,400	0.05
February	4	8	20,468	150,110	0.11
March	5	10	14,082	111,960	0.15
April	3	11	10,293	54,880	0.03
May	6	11	34,127	341,580	0.15

5.13 Effective wage increases¹ in base rates, by quarter and year (in percentages)

Sector	1985	1986	1987	1987		1988	
				3 rd quarter	4 th quarter	1 st quarter	2 nd quarter
All industries							
Agreements without COLA	3.7	3.5	3.9	3.9	3.9	4.0	4.6
Agreements with COLA	3.6	3.1	4.2	3.7	4.8	4.0	4.2
All agreements	3.7	3.5	4.1	3.8	4.3	4.0	4.5
Commercial sector							
Agreements without COLA	3.5	2.9	3.4	3.6	3.1	4.1	5.3
Agreements with COLA	3.7	3.5	4.1	3.4	4.8	4.1	4.6
All agreements	3.6	3.0	3.8	3.5	4.2	4.1	5.1
Non-commercial sector							
Agreements without COLA	3.9	3.9	4.1	4.1	4.3	3.8	3.8
Agreements with COLA	3.1	2.2	4.3	5.2	4.2	3.8	3.5
All agreements	3.8	3.8	4.2	4.3	4.3	3.8	3.7

¹ Cost of Living Adjustments (COLA) formulae are quantified using a combination of the latest CPI data available and/or a projected CPI of 4%.

5.14 Estimated number of employees and estimated average weekly earnings, for firms of all sizes, by industry for Canada and by industrial aggregate by province, 1985-87¹

Item	Number of employees ('000)			Average weekly earnings ² (\$)		
	1985 ³	1986 ³	1987	1985 ³	1986 ³	1987
Industry group (SIC 1970)						
Forestry	59.5	54.0	58.5	549.73	570.93	597.24
Mines, quarries and oil wells	169.6	158.1	153.8	705.51	718.80	726.40
Manufacturing	1,817.7	1,855.3	1,900.3	482.56	498.24	519.54
Construction	441.3	454.4	466.2	515.27	520.71	539.37
Transportation, communications and other utilities	841.1	835.4	814.8	534.33	553.21	573.03
Trade	1,687.7	1,730.2	1,793.4	304.77	318.01	325.24
Finance, insurance and real estate	568.5	590.3	611.6	434.10	454.22	486.55
Commercial, business and personal service industries	3,268.9	3,366.1	3,479.5	353.36	360.75	371.03
Public administration	661.2	665.4	667.6	527.98	547.01	568.00
Industrial aggregate ⁴	9,512.4	9,705.5	9,945.6	417.13	428.74	442.74
Industrial aggregate ⁴						
Newfoundland	126.7	127.2	136.9	398.24	409.66	423.64
Prince Edward Island	30.8	32.1	34.3	337.14	346.42	362.07
Nova Scotia	265.7	270.2	277.1	373.15	386.79	400.02
New Brunswick	210.1	213.2	210.9	378.87	393.61	407.39
Quebec	2,392.4	2,433.0	2,481.1	403.72	414.07	430.88
Ontario	3,884.6	4,016.1	4,147.3	423.46	439.97	456.35
Manitoba	363.8	376.3	383.5	380.45	394.40	407.85
Saskatchewan	287.3	292.3	293.4	391.01	398.86	406.00
Alberta	924.1	909.5	906.3	443.88	447.46	450.28
British Columbia	999.2	1,007.0	1,046.7	441.56	444.02	453.42
Yukon	8.8	9.6	9.6	490.22	506.18	513.29
Northwest Territories	18.7	18.7	18.6	584.03	593.81	609.53

¹ Data have not been adjusted for seasonal variations nor adjusted for inflation.

² Includes overtime.

³ Data have been adjusted to facilitate comparisons with 1987 (see text 5.6.1).

⁴ The industrial aggregate is the sum of all industries with the exception of agriculture, fishing and trapping, religious organizations, private households and military personnel.

5.15 Estimated average weekly hours and hourly earnings, for employees paid by the hour, by industry for Canada and by industrial aggregate by province, 1985-87¹

Item	Average weekly hours ²			Average hourly earnings ² (\$)		
	1985 ³	1986 ³	1987	1985 ³	1986 ³	1987
Industry group (SIC 1970)						
Forestry	38.2	38.5	39.4	16.00	16.10	16.28
Mines, quarries and oil wells	40.1	40.2	40.0	15.56	15.76	16.10
Manufacturing	38.6	38.5	38.8	11.47	11.82	12.24
Construction	37.9	37.9	38.4	14.08	14.23	14.60
Transportation, communications and other utilities	37.7	38.0	37.8	13.44	13.89	13.90
Trade	28.7	28.7	28.6	7.94	8.21	8.44
Finance, insurance and real estate	26.8	26.6	26.5	8.51	8.83	9.27
Commercial, business and personal service industries	27.2	26.9	26.8	8.74	8.95	9.43
Public administration	31.2	31.5	31.5	11.44	11.71	12.14
Industrial aggregate ⁴	32.3	32.1	32.0	10.46	10.70	11.03
Industrial aggregate ⁴						
Newfoundland	33.6	33.6	35.2	9.31	9.55	9.63
Prince Edward Island	31.8	31.7	32.2	7.33	7.32	7.47
Nova Scotia	32.5	32.7	32.8	8.96	9.29	9.61
New Brunswick	33.3	33.8	33.8	9.21	9.58	9.81
Quebec	32.9	32.8	32.9	10.08	10.34	10.72
Ontario	32.9	32.6	32.4	10.42	10.80	11.26
Manitoba	31.5	31.6	31.1	9.65	9.91	10.05
Saskatchewan	29.2	29.0	28.8	10.18	10.34	10.29
Alberta	31.1	30.5	30.4	10.92	10.86	10.77
British Columbia	30.2	29.9	30.0	12.39	12.31	12.47
Yukon	31.7	33.2	31.8	12.66	13.21	12.76
Northwest Territories	35.6	34.4	33.7	14.57	14.32	14.38

¹ Data have not been adjusted for seasonal variations nor adjusted for inflation.

² Includes overtime.

³ Data have been adjusted to facilitate comparisons with 1987 (see text 5.6.1).

⁴ The industrial aggregate is the sum of all industries with the exception of agriculture, fishing and trapping, religious organizations, private households and military personnel.

5.16 Total wages and salaries and supplementary labour income (million dollars)

Industry and province	1983 ^f	1984 ^f	1985 ^f	1986	1987
Industry					
Agriculture, fishing and trapping	1,735	1,834	1,969	2,116	2,274
Forestry	1,706	1,829	1,799	1,691	1,930
Mines, quarries and oil wells	5,416	6,114	6,659	6,460	6,544
Manufacturing	40,860	44,498	47,894	51,151	55,328
Construction	12,128	11,961	13,174	14,359	16,082
Transportation, communications and other utilities	21,636	23,006	24,198	25,291	26,303
Trade	25,905	28,363	30,665	33,494	36,208
Finance, insurance and real estate	14,764	16,082	17,683	19,310	21,392
Commercial and personal services	24,262	26,919	30,123	32,781	35,710
Education and related services	18,364	19,224	20,069	21,075	22,550
Health and welfare services	13,753	14,742	15,953	16,968	18,208
Federal administration and other government offices	7,556	8,071	8,321	8,880	9,016
Provincial administration	5,691	5,955	6,268	6,514	6,895
Local administration	4,562	4,835	5,053	5,355	5,665
Total wages and salaries	198,339	213,432	229,831	245,444	264,104
Supplementary labour income	21,046	22,824	24,771	26,214	28,422
Total labour income	219,385	236,257	254,602	271,659	292,526
Province					
Newfoundland	2,805	2,957	3,089	3,250	3,499
Prince Edward Island	568	621	660	709	777
Nova Scotia	4,897	5,347	5,743	6,131	6,588
New Brunswick	3,853	4,175	4,490	4,766	5,084
Quebec	47,013	50,717	54,436	58,276	63,278
Ontario	79,840	87,843	95,630	104,199	113,047
Manitoba	7,592	8,178	8,648	9,366	9,991
Saskatchewan	6,100	6,540	6,862	7,285	7,609
Alberta	21,146	21,792	23,461	23,844	24,671
British Columbia	23,737	24,360	25,869	26,636	28,525

5.17 Help-wanted Index, seasonally adjusted, annual averages 1980-87 and by month 1986 and 1987 (1981 = 100)

Year and month	Atlantic region	Quebec	Ontario	Prairie region	British Columbia	Canada
1980	105 ^f	110	88	90	70	94
1981 ^f	100	100	100	100	100	100
1982	65 ^f	49 ^f	52	42	34	48 ^f
1983	63 ^f	51 ^f	45	29	26	43 ^f
1984	84 ^f	64	63	34	30 ^f	55 ^f
1985 ^f	98	76	86	41	31	70
1986	112	96	115	44	40	88
1987	151	132	162	53	48	120
1986						
January	104	94	104	43	38	83
February	110	88	97	46	42	80
March	109	88	105	46	43	83
April	101	94	121	47	40	89
May	102	96	108	43	37	84
June	112	86	114	43	41	84
July	118	92	131	43	40	92
August	130	98	118	44	38	90
September	94	97	106	42	41	84
October	146	102	118	42	42	93
November	119	122	130	44	39	102
December	106	100	132	44	37	96
1987						
January	140	106	145	48	39	104
February	141	119	142	47	40	108
March	130	128	140	48	41	109
April	132	121	146	47	45	108
May	142	122	153	52	48	112
June	137	135	151	54	49	116
July	151	142	169	51	49	123
August	164	131	171	54	53	125

5.17 Help-wanted Index, seasonally adjusted, annual averages 1980-87 and by month 1986 and 1987 (1981 = 100) (concluded)

Year and month	Atlantic region	Quebec	Ontario	Prairie region	British Columbia	Canada
September	171	146	177	60	50	132
October	170	148	185	55	55	136
November	173	154	184	59	57	139
December	164	150	189	58	55	140

5.18 Working conditions of employees in all industries¹, 1988

Item	Agreements		Employees	
	No.	%	No.	%
Hours of work				
Less than 35 hours	22	2.0	28,606	1.2
35 hours	100	9.0	332,465	13.8
Over 35 and under 37½ hours	91	8.1	261,529	10.9
37½ hours	134	12.0	380,128	15.8
Over 37½ and under 40 hours	50	4.5	234,778	9.8
40 hours	506	45.3	884,165	36.7
Over 40 hours	42	3.8	56,740	2.4
No provision	171	15.3	229,602	9.5
Total	1,116	100.0	2,408,013	100.0
Paid holidays				
Less than 10 days	72	6.5	181,120	7.5
10 days	104	9.3	179,031	7.4
11 days	356	31.9	887,302	36.8
More than 11 days	407	36.5	848,417	35.2
More than 30 days	1	0.1	2,000	0.1
No provision	176	15.8	310,143	12.9
Total	1,116	100.0	2,408,013	100.0
Vacations with pay ² (number of weeks and service required)				
3 weeks - with service:				
Less than 3 years	365	32.7	868,718	36.1
3 to 5 years	401	35.9	583,462	24.2
5 to 10 years	20	1.8	24,540	1.0
No provision	330	29.6	931,293	38.7
4 weeks - with service:				
Less than 10 years	499	44.7	1,355,773	56.3
10 years	213	19.1	377,938	15.7
After 10 years and less than 20	109	9.8	114,656	4.8
After 20 years	1	0.1	800	—
No provision	294	26.3	558,846	23.2
5 weeks - with service:				
Less than 20 years	432	38.6	796,719	33.0
20 years	227	20.3	505,596	21.0
After 20 years and less than 30	109	9.9	378,905	15.7
After 30 years	1	0.1	2,000	0.1
After 34 years	1	0.1	600	—
No provision	346	31.0	724,193	30.1
6 weeks - with service:				
Less than 25 years	170	15.2	321,819	13.4
After 25 years and less than 35	332	29.8	605,931	25.1
After 35 years	2	0.2	1,350	0.1
No provision	612	54.8	1,478,913	61.4
7 weeks - with service:				
Less than 25 years	21	1.9	51,338	2.2
After 25 years and less than 35	72	6.5	101,457	3.1
After 35 years	17	1.5	77,260	3.2
No provision	1,006	90.1	2,177,958	90.4

5.18 Working conditions of employees in all industries¹, 1988 (concluded)

Item	Agreements		Employees	
	No.	%	No.	%
8 weeks - with service:				
After 1 year	2	0.2	11,490	0.5
After 2 years	1	0.1	600	—
After 4 years	1	0.1	1,750	0.1
After 24 years	2	0.2	23,800	1.0
After 34 years	1	0.1	500	—
After 40 years	2	0.2	1,170	—
No provision	1,107	99.2	2,368,703	98.4

¹ Agreements covering 500 employees or more in all industries in Canada.

² Legislation in all jurisdictions in Canada entitles employees to at least 2 weeks annual vacation with pay generally after 1 year of employment.

5.19 Selected characteristics of employer-sponsored pension plans 1982, 1984 and 1986

Plans	1982		1984		1986	
	No.	% of total	No.	% of total	No.	% of total
Type of plan						
Defined contribution	6,108	40.1	9,030	51.0	12,637	59.9
Defined benefit	8,775	57.6	8,386	47.3	8,215	38.9
Other	349	2.3	295	1.7	242	1.1
Funding agency						
Insurance companies	10,623	69.7	12,788	72.2	15,632	74.1
Trusteed	4,331	28.4	4,655	26.3	5,175	24.5
Government consolidated revenue funds	19	0.1	19	0.1	19	0.1
Other	259	1.7	249	1.4	268	1.3
Contributory	10,489	68.9	10,322	58.3	11,184	53.0
Non-contributory	4,743	31.1	7,389	41.7	9,910	47.0
Public sector	729	4.8	803	4.5	937	4.4
Private sector	14,503	95.2	16,908	95.5	20,157	95.6
Total	15,232	100.0	17,711	100.0	21,094	100.0
Members						
Type of plan						
Defined contribution	245,733	5.3	268,623	5.9	325,320	7.0
Defined benefit	4,363,653	93.7	4,243,248	93.0	4,295,691	92.0
Other	48,549	1.0	52,752	1.2	47,370	1.0
Funding agency						
Insurance companies	619,609	13.3	619,100	13.6	640,007	13.7
Trusteed	3,181,365	68.3	3,062,893	67.1	3,142,471	67.3
Government consolidated revenue funds	686,487	14.7	712,583	15.6	716,158	15.3
Other	170,474	3.7	170,047	3.7	169,745	3.6
Contributory	3,183,281	68.3	3,168,632	69.4	3,236,819	69.3
Non-contributory	1,474,654	31.7	1,395,991	30.6	1,431,562	30.7
Public sector	1,975,533	42.4	2,028,929	44.4	2,086,206	44.7
Private sector	2,682,402	57.6	2,535,694	55.6	2,582,175	55.3
Male	3,181,288	68.3	3,039,449	66.6	3,047,160	65.3
Female	1,476,647	31.7	1,525,174	33.4	1,621,221	34.7
Total	4,657,935	100.0	4,564,623	100.0	4,668,381	100.0

5.20 Trusteed pension funds, income expenditures and assets

Item	1984		1985		1986	
	\$'000,000	%	\$'000,000	%	\$'000,000	%
Income						
Contributions						
Employer	4,147	25.9	4,408	22.5	3,963	17.7
Employee	2,651	16.5	2,669	13.6	2,828	12.7
Total, contributions	6,798	42.4	7,077	36.1	6,791	30.4
Investment income	8,215	51.2	9,488	48.4	10,367	46.4
Realized profit on sale of securities	922	5.8	2,957	15.1	4,998	22.4
Miscellaneous	95	0.6	87	0.4	196	0.9
Total, income	16,030	100.0	19,609	100.0	22,352	100.0
Expenditures						
Pension payments out of funds	3,756	72.6	4,300	71.1	5,109	76.4
Cost of pension purchased	375	7.3	288	4.8	188	2.8
Cash withdrawals	753	14.6	942	15.6	972	14.5
Administration costs	153	3.0	182	3.0	224	3.3
Realized loss on sale of securities	76	1.5	5	0.1	6	0.1
Other expenditures	58	1.1	328	5.4	190	2.8
Total, expenditures	5,171	100.0	6,045	100.0	6,689	100.0
Assets (book value)						
Pooled funds ¹	2,730	2.9	2,886	2.6	3,448	2.7
Mutual and investment funds	1,154	1.2	1,508	1.4	1,567	1.2
Venture capital	..	..	..	..	361	0.3
Segregated and deposit administration funds of insurance companies	1,666	1.7	1,915	1.7	1,543	1.2
Bonds						
Government of Canada	13,648	14.2	17,552	15.9	21,077	16.6
Provincial governments	20,331	21.1	23,555	21.3	26,229	20.6
Municipal governments, school boards, etc.	2,291	2.4	2,255	2.0	2,372	1.9
Other Canadian bonds	7,369	7.6	8,176	7.4	10,255	8.1
Non-Canadian bonds	117	0.1	162	0.1	250	0.2
Total, bonds	43,756	45.4	51,700	46.8	60,184	47.3
Stocks						
Canadian, common	19,855	20.6	23,422	21.2	27,376	21.5
Canadian, preferred	560	0.6	485	0.4	497	0.4
Non-Canadian, common and preferred	4,736	4.9	5,463	4.9	6,439	5.1
Total, stocks	25,151	26.1	29,369	26.6	34,312	26.9
Mortgages	6,439	6.7	6,386	5.8	6,624	5.2
Real estate and lease-backs	2,307	2.4	3,115	2.8	3,459	2.7
Cash and short-term investments	10,995	11.4	10,991	10.0	12,938	10.2
Miscellaneous ²	2,111	2.2	2,511	2.3	2,899	2.3
Gross assets	96,311	100.0	110,381	100.0	127,336	100.0
Less: debts and amounts payable	217	0.2	424	0.4	529	0.4
Net assets	96,094	99.8	109,957	99.6	126,807	99.6

¹ 1986 includes pooled funds of trust companies and of investment counsellors.² Includes accrued interest and dividends receivable, accounts receivable and other assets.

5.21 Fatal occupational injuries and illnesses¹

Industry	Number				Percentage of total			
	1984	1985	1986	1987 ^P	1984	1985	1986	1987 ^P
Agriculture	20	20	9	12	2.6	2.6	1.3	1.8
Forestry	60	65	55	61	7.5	8.5	7.6	9.2
Fishing and trapping	27	26	14	24	3.4	3.4	1.9	3.6
Mining, quarrying and oil wells	102	116	108	108	12.8	15.1	15.0	16.2
Manufacturing	122	115	111	108	15.3	15.0	15.4	16.2
Construction	145	122	141	118	18.1	15.9	19.6	17.7
Transportation, communications and other utilities	123	122	122	107	15.4	15.9	17.0	16.1
Trade	52	71	59	40	6.5	9.2	8.2	6.0
Finance, insurance and real estate	10	4	6	4	1.3	0.5	0.8	0.6
Service	62	42	39	38	7.8	5.5	5.4	5.7
Public administration	65	46	55	36	8.1	6.0	7.6	5.4
Unspecified	11	19	—	9	1.4	2.5	—	1.4
Total	799	768	719	665	100.0	100.0	100.0	100.0

¹ Data derived from unprocessed fatality claims reported by worker compensation boards. If Quebec is included, there were a total of 917 fatal occupational injuries and illnesses in 1985, 863 in 1986 and 828 in 1987. Quebec does not provide its data by industry however.

5.22 Number of accepted time-loss injuries, by province, 1982-86

Province or territory	1982	1983	1984	1985	1986
Newfoundland	7,766	7,808	8,223	8,743	8,624
Prince Edward Island	1,499	1,627	1,495	1,787	1,935
Nova Scotia	12,501	12,156	11,940	12,624	12,620
New Brunswick	9,696	9,530	9,704	8,986	9,909
Quebec	159,288	160,796	176,001	194,377	213,366
Ontario	141,917	145,412	167,748	186,648	195,937
Manitoba	18,558	17,759	21,358	22,440	23,495
Saskatchewan	15,239	15,507	15,700	16,666	15,916
Alberta	44,941	37,346	37,665	41,376	42,249
British Columbia	66,882	62,949	59,319	61,146	61,711
Northwest Territories	1,271	1,039	1,164	1,198	956
Total	479,558 ^T	471,929 ^T	510,317 ^T	555,991	586,718

5.23 Work injury costs¹, 1986 and 1987^P (thousand dollars)

Year and province or territory	Medical aid	Hospitalization/rehabilitation	Funeral	Pension	Compensation for lost earnings	Total payments	Total claims
1986							
Newfoundland	7,773	2,571	37	9,798	17,262	37,441	18,247
Prince Edward Island	807	526	2	1,624	2,047	5,006	3,619
Nova Scotia	6,433	6,065	40	16,120	42,491	71,149	31,938
New Brunswick	3,228	12,136	17	12,358	16,572	44,331	23,622
Quebec	94,205	78,935	304	305,406	463,604	942,454	322,224
Ontario	163,280	31,633	509	399,638	653,679	1,248,739	413,616
Manitoba	11,864	10,568	53	23,290	35,130	80,905	40,919
Saskatchewan	11,902	8,693	..	21,092	40,853	82,540	37,034
Alberta	48,872	2	..	122,586	267,393	438,851	57,292
British Columbia	43,146	19,411	482	102,090	125,447	290,576	120,696
Yukon	481	63	..	629	762	1,935	1,420
Northwest Territories	1,719	332	12	3,333	1,531	6,927	3,186
Canada	566,119 ³	2	2	1,017,964	1,666,771	3,250,854	1,073,813
1987 ^P							
Newfoundland	8,832	4,109	42	9,304	19,310	41,597	17,377
Prince Edward Island	1,127	575	2	2,452	2,835	6,991	3,860
Nova Scotia	4,841	4,972	12	17,537	39,605	66,967	26,688
New Brunswick	3,760	12,858	15	13,024	19,210	48,867	25,590
Quebec	102,491	91,450	532	335,016	462,190	991,679	264,052
Ontario	179,385	40,533	..	465,051	780,776	1,465,745	430,984
Manitoba	13,493	12,338	41	23,213	39,056	88,141	40,204
Saskatchewan	13,511	9,935	..	22,088	40,862	86,396	36,785

5.23 Work injury costs¹, 1986 and 1987^p (thousand dollars) (concluded)

Year and province or territory	Medical aid	Hospitalization/rehabilitation	Funeral	Pension	Compensation for lost earnings	Total payments	Total claims
Alberta	49,779	2	..	116,528	245,223	411,530	58,159
British Columbia	47,464	23,421	460	108,248	139,691	319,284	126,479
Yukon	328	46	..	1,840	828	3,042	1,661
Northwest Territories	1,968	1,355	10	4,470	1,487	9,290	3,063
Canada	629,685 ³	2	2	1,118,771	1,791,073	3,539,529	1,034,902

Note: Not available, value could be included in medical aid.

¹ All cost figures are taken from Workers' Compensation Board annual reports.

² Included in medical aid.

³ See footnote 2, included in medical aid.

5.24 Unemployment Insurance claims and average payments

Year and month	Activity				
	Persons covered by Unemployment Insurance '000	Claims data ('000)		Benefit data	
		Beneficiaries	Initial and renewal claims received	Number of weeks paid '000	Average weekly payment \$
1982	10,648	1,138	3,919	60,441	141.88 ^f
1983	10,797	1,248	3,434	66,585	152.72 ^f
1984	11,046	1,194	3,492	61,862	161.42 ^f
1985	11,340	1,145	3,312	59,788	171.05 ^f
1986	11,632	1,095	3,353	58,063	181.07
1987	11,872	1,033	3,221	54,864	190.28
1986					
January	11,376	1,285	379	6,454	180.69
February	11,426	1,281	216	5,291	180.78
March	11,455	1,270	214	5,088	180.94
April	11,514	1,209	267	6,008	180.86
May	11,668	1,095	221	4,723	179.75
June	11,850	985	234	4,352	178.59
July	11,946	991	298	4,509	177.57
August	11,988	993	215	4,065	178.42
September	11,578	902	289	4,240	180.32
October	11,578	947	331	4,137	181.69
November	11,574	1,044	330	4,006	183.75
December	11,632	1,144	358	5,191	188.65
1987					
January	11,543	1,267	318	5,508	190.62
February	11,583	1,276	220	5,192	193.03
March	11,655	1,251	241	5,791	192.92
April	11,713	1,183	227	5,149	192.06
May	11,904	1,020	202	4,386	189.45
June	12,066	898	247	4,099	185.62
July	12,208	908	287	4,777	180.55
August	12,230	920	214	4,061	187.20
September	11,810	821	268	3,978	188.85
October	11,893	853	291	3,483	190.02
November	11,871	934	344	3,932	192.70
December	11,986	1,066	362	4,509	198.70

5.25 Unemployment Insurance benefits by type (thousand dollars)

Year and month	Benefits paid									
	Regular	Sickness	Maternity	Adoption	Retirement	Fishing	Training	Work sharing	Job creation	Total
1982	7,646,025	174,416	315,972	...	18,167	111,857	202,129	83,154	23,726	8,575,445
1983	9,069,503	179,474	344,168	...	18,514	141,836	225,767	83,140	106,661	10,169,063
1984	8,825,126	204,559	395,918	3,071	19,158	163,372	226,846	32,389	115,186	9,985,625
1985	8,975,315	220,700	432,531	3,845	22,399	179,767	234,529	25,190	132,612	10,226,888
1986	9,209,882	242,065	472,547	4,146	21,802	208,515	236,933	21,653	96,014	10,513,557
1987	9,075,072	278,693	506,154	4,637	23,110	223,321	223,776	16,979	87,619	10,439,361

5.25 Unemployment Insurance benefits by type (thousand dollars) (concluded)

Year and month	Benefits paid									
	Regular	Sickness	Maternity	Adoption	Retirement	Fishing	Training	Work sharing	Job creation	Total
1984										
January	914,666	16,592	29,690	2	1,626	29,481	23,407	3,133	6,650	1,025,248
February	869,551	17,019	28,990	95	1,548	28,900	25,789	3,910	6,675	982,477
March	838,435	18,300	30,497	238	1,602	24,938	25,259	4,195	6,762	950,226
April	788,664	15,713	27,856	238	1,360	24,813	21,076	3,406	5,786	888,913
May	819,812	17,917	34,799	315	1,720	19,356	22,875	3,101	6,097	925,992
June	641,391	16,389	32,929	330	1,582	858	16,994	2,896	6,342	719,710
July	651,469	17,019	35,707	303	1,490	1,244	11,230	2,365	8,266	729,093
August	695,129	18,119	38,842	326	1,646	1,653	9,725	1,600	10,683	777,722
September	570,730	15,610	33,033	292	1,433	1,433	10,284	1,665	11,482	645,961
October	683,891	18,315	39,285	340	1,833	1,749	20,542	1,855	16,141	783,949
November	658,185	17,376	34,173	322	1,779	6,201	19,116	2,093	15,718	754,963
December	693,205	16,191	30,117	270	1,540	22,747	20,548	2,172	14,583	801,371
1985										
January	1,038,682	19,414	36,107	320	2,153	36,322	23,527	3,512	12,982	1,173,018
February	870,735	17,807	30,244	265	1,919	27,191	25,875	3,691	11,342	989,070
March	860,396	19,144	31,989	284	2,012	26,851	25,569	3,826	11,262	981,334
April	910,323	19,129	34,374	295	1,954	27,824	24,394	3,176	10,469	1,031,939
May	786,010	19,445	37,301	365	2,015	20,137	22,202	2,555	10,738	900,767
June	628,661	17,098	34,573	335	1,844	1,093	16,786	1,777	12,105	714,272
July	691,682	18,530	40,945	367	1,850	1,932	13,193	1,343	14,915	784,759
August	638,254	17,933	39,328	356	1,907	1,857	9,707	868	11,463	721,673
September	603,376	17,555	38,225	339	1,743	1,809	10,791	980	10,347	685,164
October	646,290	19,187	42,069	354	1,926	2,106	21,325	1,112	11,199	745,569
November	620,550	17,864	34,892	301	1,663	7,422	19,944	1,126	8,659	712,420
December	680,355	17,595	32,484	263	1,414	25,224	21,216	1,224	7,130	786,904
1986										
January	1,030,936	21,717	40,134	358	1,929	39,665	24,823	1,912	4,744	1,166,219
February	841,700	18,583	32,921	281	1,912	29,847	25,991	1,764	3,431	956,430
March	809,116	18,910	31,976	274	1,657	29,120	24,463	1,707	3,351	920,575
April	955,386	22,333	40,679	365	1,822	31,540	28,033	1,688	4,797	1,086,642
May	739,826	19,555	38,262	339	1,818	20,844	20,657	1,570	6,061	848,933
June	686,561	19,457	39,664	372	1,813	1,149	18,119	1,712	8,302	777,148
July	705,489	20,417	44,866	410	1,732	2,359	13,319	1,841	10,309	800,742
August	642,617	18,382	39,935	381	1,854	2,275	8,883	1,504	9,493	725,323
September	672,002	20,148	42,163	362	1,929	2,454	11,299	1,983	12,223	764,563
October	646,660	21,077	44,628	405	1,894	2,477	19,880	2,150	12,542	751,714
November	638,576	19,058	36,856	293	1,705	8,591	18,167	1,924	10,883	736,053
December	841,014	22,429	40,462	305	1,736	38,192	23,300	1,899	9,880	979,215
1987										
January	926,011	21,879	38,200	351	1,811	36,459	20,419	2,441	2,374	1,049,946
February	881,204	21,293	35,025	342	2,007	33,693	24,857	2,282	1,431	1,002,135
March	982,475	24,287	39,420	380	2,093	36,907	26,554	2,692	2,449	1,117,258
April	861,149	22,707	39,990	333	1,850	33,062	24,420	2,047	3,280	988,837
May	715,447	21,905	40,429	337	1,844	25,718	18,906	1,573	4,681	830,839
June	664,607	22,764	43,210	392	2,112	1,450	18,002	1,371	7,014	760,922
July	764,449	23,697	48,081	418	1,765	2,654	11,785	974	8,768	862,590
August	666,632	22,569	46,292	413	2,030	2,860	8,508	704	10,119	760,128
September	648,134	24,850	48,374	477	2,002	2,848	11,453	686	12,337	751,161
October	560,956	23,040	42,527	432	2,007	2,713	17,430	613	12,067	661,786
November	646,893	23,908	42,670	388	1,933	9,393	18,938	676	12,915	757,715
December	757,116	25,795	41,935	373	1,656	35,564	22,503	918	10,183	896,043

5.26 Average incomes of families in current and constant (1986) dollars, selected years, 1975-86

Province	Current dollars							
	1975	1977	1979	1981	1983	1984	1985	1986
Newfoundland	13,216	16,456	18,947	25,464	26,894	28,003	29,629	29,446
Prince Edward Island	12,362	16,050	18,792	23,163	28,675	29,183	30,943	31,817
Nova Scotia	13,526	16,505	19,976	24,662	29,997	30,820	34,349	34,457
New Brunswick	13,752	16,888	19,559	24,305	27,861	30,191	31,473	32,665
Quebec	15,438	19,056	23,400	28,124	31,937	33,991	35,068	37,282
Ontario	18,040	21,600	25,298	32,170	37,465	38,464	41,775	45,078
Manitoba	14,974	18,421	21,916	28,189	34,436	33,783	34,829	36,390
Saskatchewan	15,867	17,960	22,874	28,743	33,186	33,090	34,866	36,125
Alberta	16,996	21,251	25,884	34,546	37,219	37,670	40,736	42,428
British Columbia	17,734	21,040	26,644	32,835	36,034	35,944	37,968	39,937
Canada	16,604	20,101	24,245	30,440	34,748	35,767	38,059	40,356
	Constant dollars							
	1975	1977	1979	1981	1983	1984	1985	1986
Newfoundland	29,904	32,093	31,081	33,714	30,382	30,316	30,840	29,446
Prince Edward Island	27,972	31,302	30,827	30,668	32,394	31,593	32,208	31,817
Nova Scotia	30,605	32,189	32,769	32,652	33,887	32,676	35,753	34,457
New Brunswick	31,117	32,936	32,085	32,180	31,474	32,684	32,760	32,665
Quebec	34,932	37,164	38,386	37,236	36,079	36,798	36,502	37,282
Ontario	40,819	42,125	41,500	42,593	42,324	41,640	43,483	45,078
Manitoba	33,882	35,926	35,952	37,322	38,902	36,573	36,253	36,390
Saskatchewan	35,903	35,027	37,523	38,056	37,490	35,823	36,291	36,125
Alberta	38,457	41,445	42,461	45,739	42,046	40,781	42,401	42,428
British Columbia	40,127	41,033	43,708	43,474	40,707	38,912	39,520	39,937
Canada	37,570	39,202	39,772	40,303	39,255	38,721	39,615	40,356

5.27 Percentage distribution of families, showing average and median¹ incomes, in constant (1986) dollars, selected years, 1975-86

Income group	1975	1977	1979	1981	1983	1984	1985	1986
Under \$10,000	6.3	6.5	6.1	5.1	5.4	5.8	5.3	4.8
\$10,000 - \$19,999	15.9	14.3	14.7	14.8	17.3	17.9	17.3	16.7
20,000 - 29,999	19.1	16.8	16.4	17.4	18.0	17.5	17.5	17.4
30,000 - 39,999	20.5	20.0	19.6	18.7	18.1	18.4	18.2	18.1
40,000 - 49,999	16.1	15.7	16.2	16.7	15.2	15.4	15.0	15.2
50,000 - 59,999	9.7	11.1	11.3	10.8	10.3	10.2	10.7	10.9
60,000 - 74,999	7.0	8.9	8.7	9.1	8.5	7.9	8.5	9.0
75,000 and over	5.4	6.8	7.1	7.5	7.3	7.0	7.5	7.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Average income	\$ 37,570	39,201	39,772	40,302	39,254	38,721	39,615	40,356
Median income	\$ 34,066	36,213	36,595	36,923	34,862	34,828	35,455	36,042
Standard error of average income	\$ 244	232	254	228	267	240	269	329

¹ Median income refers to the middle or central value when incomes are ranged in order of magnitude. Median income is lower than average income in these tables since it is not as affected by a few abnormally large values in the distribution.

5.28 Percentage distribution of families by income group and province, 1986

Income group	Nfld.	PEI	NS	NB	Que.	Ont.	Man.	Sask.	Alta.	BC	Canada
Under \$ 5,000	1.1	0.4	1.1	0.9	0.9	0.9	1.8	2.4	1.1	1.2	1.0
\$ 5,000 - \$ 9,999	6.7	3.4	5.8	6.6	4.8	2.7	3.9	5.5	2.7	3.5	3.8
10,000 - 12,499	6.8	3.7	4.1	4.2	4.2	2.2	3.0	4.0	2.7	4.6	3.4
12,500 - 14,999	7.4	6.8	6.7	5.3	5.1	3.2	6.3	6.8	3.9	4.1	4.4
15,000 - 17,499	7.5	6.5	6.1	5.7	5.0	4.0	5.7	5.2	5.2	5.1	4.8
17,500 - 19,999	6.0	7.9	5.5	5.1	4.3	3.5	5.3	5.2	3.5	3.9	4.1
20,000 - 24,999	13.8	13.0	10.2	11.4	9.7	6.8	10.0	9.9	8.6	7.5	8.5
25,000 - 29,999	9.9	13.0	10.5	11.8	9.7	7.9	10.7	8.5	8.5	8.4	8.9
30,000 - 34,999	9.2	12.4	10.6	10.5	9.6	9.0	8.9	9.1	8.1	9.1	9.2
35,000 - 39,999	7.6	8.5	8.8	9.7	8.7	9.0	8.7	7.7	9.0	9.5	8.9
40,000 - 44,999	7.2	5.3	6.1	7.8	7.8	8.9	7.7	7.3	7.5	9.5	8.2
45,000 - 49,999	4.7	6.5	5.0	5.3	6.8	7.5	5.9	6.3	7.8	7.0	7.0
50,000 - 54,999	3.6	4.3	5.6	4.9	5.8	7.2	4.6	4.1	5.8	5.8	6.1
55,000 - 59,999	2.0	1.8	2.9	3.4	3.9	5.9	3.9	3.3	5.4	5.5	4.8
60,000 - 64,999	2.0	1.1	3.7	2.5	4.1	4.4	2.9	3.3	4.5	3.1	3.9
65,000 - 69,999	1.4	1.6	1.3	1.5	2.2	3.7	2.7	2.9	3.2	2.7	2.8
70,000 - 74,999	1.0	0.9	1.5	1.0	2.0	2.8	1.8	1.8	3.1	2.4	2.3
75,000 and over	2.1	2.7	4.7	2.4	5.6	10.5	6.2	6.8	9.5	7.1	7.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Average income	\$ 29,446	31,817	34,457	32,665	37,282	45,078	36,390	36,125	42,428	39,937	40,356
Median income	\$ 25,361	28,156	30,033	29,617	33,320	40,519	31,837	31,348	38,130	36,292	36,042
Number of records ¹	1,517	722	1,752	1,851	3,570	4,482	1,718	2,339	3,274	2,382	23,607
Estimated number of families	'000 146	34	229	190	1,862	2,477	284	259	619	796	6,896
Standard error of average income	\$ 664	961	775	501	560	748	743	719	585	827	329

¹ Sample size.**5.29 Upper limits of income quintiles and percentage distribution of total income of families and unattached individuals, by quintiles, selected years, 1975-86**

Category and year	Lowest quintile	Second quintile	Middle quintile	Fourth quintile	Highest quintile
Families					
Upper limits					
1975	8,214	12,997	17,224	22,823	...
1977	9,987	16,025	21,223	28,439	...
1979	11,851	19,214	25,512	33,963	...
1980	13,159	21,695	28,630	38,226	...
1981	15,126	23,767	31,783	42,514	...
1982	15,339	25,344	34,374	46,388	...
1983	16,216	26,205	36,022	48,905	...
1984	16,473	27,084	37,140	50,228	...
1985	17,834	28,800	39,418	53,400	...
1986	18,977	30,500	41,605	56,703	...
Shares of total income					
1975	6.2	13.0	18.2	23.9	38.8
1977	5.9	13.1	18.5	24.4	38.0
1979	6.1	13.0	18.4	24.3	38.3
1980	6.2	13.0	18.4	24.1	38.4
1981	6.4	12.9	18.3	24.1	38.4
1982	6.3	12.6	18.0	24.1	38.9
1983	6.2	12.3	17.8	24.1	39.5
1984	6.1	12.3	18.0	24.1	39.5
1985	6.3	12.3	17.9	24.1	39.4
1986	6.3	12.3	17.9	24.1	39.4
Unattached individuals					
Upper limits					
1975	2,400	3,624	6,705	10,422	...
1977	2,874	4,452	8,412	13,200	...
1979	3,777	5,820	10,500	16,000	...
1980	4,529	6,275	11,399	18,100	...
1981	5,348	7,795	13,565	20,800	...
1982	5,992	8,528	14,691	22,825	...
1983	6,116	8,362	13,900	23,021	...
1984	6,500	9,308	15,112	24,199	...
1985	7,000	9,977	15,950	25,092	...
1986	7,612	10,686	16,946	26,660	...

5.29 Upper limits of income quintiles and percentage distribution of total income of families and unattached individuals, by quintiles, selected years (concluded)

Category and year	Lowest quintile	Second quintile	Middle quintile	Fourth quintile	Highest quintile
Shares of total income					
1975	3.9	8.9	15.5	25.6	46.1
1977	3.8	8.4	15.4	25.8	46.5
1979	4.6	8.9	15.8	25.1	45.6
1980	4.5	9.4	15.5	25.7	44.9
1981	5.0	9.5	15.7	25.1	44.7
1982	4.9	9.5	15.4	24.9	45.4
1983	4.8	9.5	14.5	24.2	47.1
1984	4.9	9.9	15.2	24.6	45.4
1985	5.2	10.2	15.0	24.2	45.4
1986	5.3	10.4	15.3	24.4	44.7
Families and unattached individuals					
Upper limits					
1975	5,038	9,793	14,545	20,598	...
1977	5,973	12,013	17,993	25,594	...
1979	7,331	14,148	21,380	30,400	...
1980	8,243	16,000	23,292	33,753	...
1981	9,872	18,178	27,145	38,107	...
1982	10,645	19,285	28,808	41,401	...
1983	10,648	19,762	30,032	43,770	...
1984	11,126	20,194	31,204	44,832	...
1985	12,000	21,500	33,070	47,914	...
1986	12,558	22,836	34,785	50,380	...
Shares of total income					
1975	4.0	10.6	17.6	25.1	42.6
1977	3.8	10.7	17.9	25.6	42.0
1979	4.2	10.6	17.6	25.3	42.3
1980	4.1	10.5	17.7	25.3	42.4
1981	4.6	10.9	17.6	25.2	41.8
1982	4.5	10.7	17.3	25.0	42.5
1983	4.4	10.3	17.1	25.0	43.2
1984	4.5	10.3	17.1	25.0	43.0
1985	4.7	10.4	17.0	25.0	43.0
1986	4.7	10.4	17.0	24.9	43.0

5.30 Estimated incidence and percentage distribution of low-income¹ and all other families and unattached individuals, 1986

Selected characteristics	Families			Unattached individuals		
	Incidence of low income ²	Percentage distribution of		Incidence of low income ²	Percentage distribution of	
		Low income	All other		Low income	All other
All families and unattached individuals	12.3	100.0	100.0	34.3	100.0	100.0
Estimated numbers ('000)	851	851	6,044	982	982	1,877
By province of residence						
Atlantic provinces	15.8	11.1	8.3	38.6	7.0	5.8
Newfoundland	21.2	3.6	1.9	49.1	1.3	0.7
Prince Edward Island	9.8	0.4	0.5	41.8	0.5	0.3
Nova Scotia	14.5	3.9	3.2	35.9	3.0	2.8
New Brunswick	14.3	3.2	2.7	37.4	2.3	2.0
Quebec	15.3	33.5	26.1	44.6	33.5	21.8
Ontario	8.7	25.4	37.4	28.3	29.8	39.4
Prairie provinces	12.9	17.6	16.7	31.3	16.3	18.7
Manitoba	14.5	4.8	4.0	30.2	3.9	4.7
Saskatchewan	16.4	5.0	3.6	33.2	4.1	4.3
Alberta	10.7	7.8	9.1	31.0	8.3	9.6
British Columbia	13.3	12.4	11.4	33.0	13.4	14.3
By size of area of residence						
Urban areas 500,000 and over	12.3	43.6	43.9	35.3	54.8	52.5
Urban areas 100,000 - 499,999	12.6	13.1	12.8	34.5	14.3	14.2
Urban areas 30,000 - 99,999	12.1	10.3	10.5	34.5	9.7	9.7
Urban areas under 30,000	12.8	14.3	13.7	32.9	12.7	13.6
Rural areas	12.2	18.8	19.0	30.4	8.4	10.1

5.30 Estimated incidence and percentage distribution of low-income¹ and all other families and unattached individuals, 1986 (concluded)

Selected characteristics	Families			Unattached individuals		
	Incidence of low income ²	Percentage distribution of		Incidence of low income ²	Percentage distribution of	
		Low income	All other		Low income	All other
By tenure						
Owners	7.3	42.5	76.4	24.4	19.1	31.0
With mortgage	6.2	19.1	40.5	14.3	3.7	11.5
Without mortgage	8.4	23.4	35.9	29.3	15.4	19.5
Renters ³	25.6	57.5	23.6	38.0	80.9	69.0
By age of head						
24 years and under	30.2	10.3	3.3	47.7	22.3	12.8
25 - 34 years	16.0	29.9	22.2	22.4	16.0	28.9
35 - 44 "	11.0	22.8	25.9	22.2	7.6	13.9
45 - 54 "	8.8	12.8	18.6	26.3	6.5	9.4
55 - 64 "	11.0	13.5	15.5	39.1	13.6	11.1
65 - 69 "	8.8	3.8	5.5	36.7	7.7	6.9
70 years and over	9.9	7.0	8.9	44.9	26.5	17.0
By sex and age of head						
Male	9.0	64.9	92.2	29.2	38.4	48.6
Under 65 years	9.1	56.1	79.1	28.8	32.4	41.9
65 years and over	8.7	8.8	13.1	31.9	6.0	6.7
Female	38.7	35.1	7.8	38.5	61.6	51.4
Under 65 years	42.0	33.1	6.4	33.9	33.5	34.2
65 years and over	16.5	2.0	1.4	46.1	28.1	17.2
By family characteristics						
Married couples only	8.1	20.6	32.7	...	...	...
Married couples with single children only	9.6	39.4	52.3	...	...	...
Married couples with children and/or other relatives	6.1	1.9	4.0	...	...	...
Lone-parent families						
Male head	16.4	2.2	1.6	...	...	...
Female head	44.1	32.0	5.7	...	...	...
All other families	13.3	3.9	3.6	...	...	...
By number of children under 18 years						
None	8.1	32.0	50.8	34.3	100.0	100.0
One child	16.1	27.2	20.0	...	...	...
Two children	14.3	24.5	20.7	...	...	...
Three or more children	21.3	16.3	8.5	...	...	...
By employment status of head						
In labour force	9.0	55.7	79.5	22.3	38.9	71.0
Not in labour force	23.3	44.3	20.5	52.4	61.1	29.0
By size of family unit						
One person	...	...	...	34.3	100.0	100.0
Two persons	12.4	39.6	39.4	...	...	...
Three persons	13.7	25.1	22.2	...	...	...
Four persons	10.4	20.4	24.8	...	...	...
Five or more persons	13.4	14.9	13.6	...	...	...

¹ Estimates based on low-income cutoffs, 1978 base.

² Percentage of families and unattached individuals with income below the low-income cutoffs.

³ Includes roomers, lodgers and families and unattached individuals who receive free lodging or who reside with employers.

5.31 Patterns of family expenditures (Canada, 10 provinces) selected years, 1969-86

[illegible]

5.32 Patterns of family expenditures (17 cities¹) selected years, 1969-86

Item	1969	1978	1986	1986						
				Under \$10,000	\$10,000 – \$19,999	\$20,000 – \$29,999	\$30,000 – \$39,999	\$40,000 – \$49,999	\$50,000 – \$59,999	\$60,000 and over
Number of families in sample	6,296	5,179	5,899	559	1,125	1,037	989	777	585	827
Estimated number of families ('000)	2,904	3,545	4,424	408	805	725	697	598	468	727
Average										
Family size	3.10	2.74	2.63	1.28	1.87	2.28	2.79	3.19	3.20	3.60
Age of head	46	45	46	56	51	42	42	42	43	46
Family income (\$)	9,089	21,139	38,925	7,304	14,866	25,004	34,795	44,643	54,521	86,713
Other money receipts (\$)	115	434	975	783	764	833	834	954	656	1,825
Change in assets and liabilities (\$)	247	1,543	1,784	-1,555	-798	-889	-192	1,126	2,658	11,113
Percentage										
Homeowners	47.9	52.2	51.6	17.7	24.4	35.9	54.2	67.0	74.3	86.9
Automobile owners	68.1	72.4	74.4	21.1	50.2	71.8	86.1	92.6	94.2	94.9
Total expenditure (\$)	9,038	19,990	38,236	9,807	16,639	27,065	36,205	44,600	52,311	77,149
Percentage share										
Food	17.7	16.7	13.9	21.2	18.7	15.8	14.8	14.1	13.1	11.4
Shelter	16.6	17.3	16.7	34.0	26.7	19.6	17.7	16.3	15.0	12.6
Household operation	3.6	3.7	4.1	6.2	5.1	4.6	4.1	3.9	3.8	3.7
Household furnishings	3.9	4.1	3.3	3.0	3.0	3.5	3.4	3.7	3.2	3.3
Clothing	8.8	7.2	6.3	5.6	5.8	6.2	6.0	6.4	5.8	6.9
Transportation	11.6	11.7	12.5	7.7	10.7	12.6	13.3	13.4	13.6	12.0
Health care	3.2	1.9	1.8	2.1	2.3	2.1	2.0	1.9	1.8	1.4
Personal care	2.1	1.7	1.9	2.7	2.5	2.1	2.0	1.9	1.8	1.6
Recreation	4.1	5.0	4.9	4.2	4.2	5.1	4.9	4.6	4.7	5.2
Reading materials	0.7	0.6	0.6	0.9	0.8	0.7	0.6	0.6	0.5	0.6
Education	1.0	0.8	1.0	1.4	1.0	0.8	0.7	0.9	1.0	1.2
Tobacco products and alcohol	3.7	3.2	3.1	3.8	4.4	3.9	3.5	3.0	3.0	2.3
Miscellaneous	1.4	2.2	2.4	2.0	2.7	2.5	2.3	2.6	2.6	2.3
Total current consumption	78.4	76.1	72.6	94.7	87.9	79.4	75.4	73.3	70.0	64.4
Personal taxes	14.2	16.9	19.9	1.3	6.7	13.0	16.8	19.0	22.0	27.8
Security	4.6	4.6	4.5	0.7	2.2	4.4	4.4	5.3	5.1	4.8
Gifts and contributions	2.7	2.3	3.0	3.4	3.3	3.3	3.4	2.3	2.8	3.1
Total expenditure	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

¹ St. John's (Nfld.), Charlottetown, Summerside, Halifax, Saint John (NB), Quebec, Montreal, Ottawa, Toronto, Thunder Bay, Winnipeg, Regina, Saskatoon, Calgary, Edmonton, Vancouver and Victoria.

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CHAPTER 6

SOCIAL SECURITY

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SOCIAL SECURITY

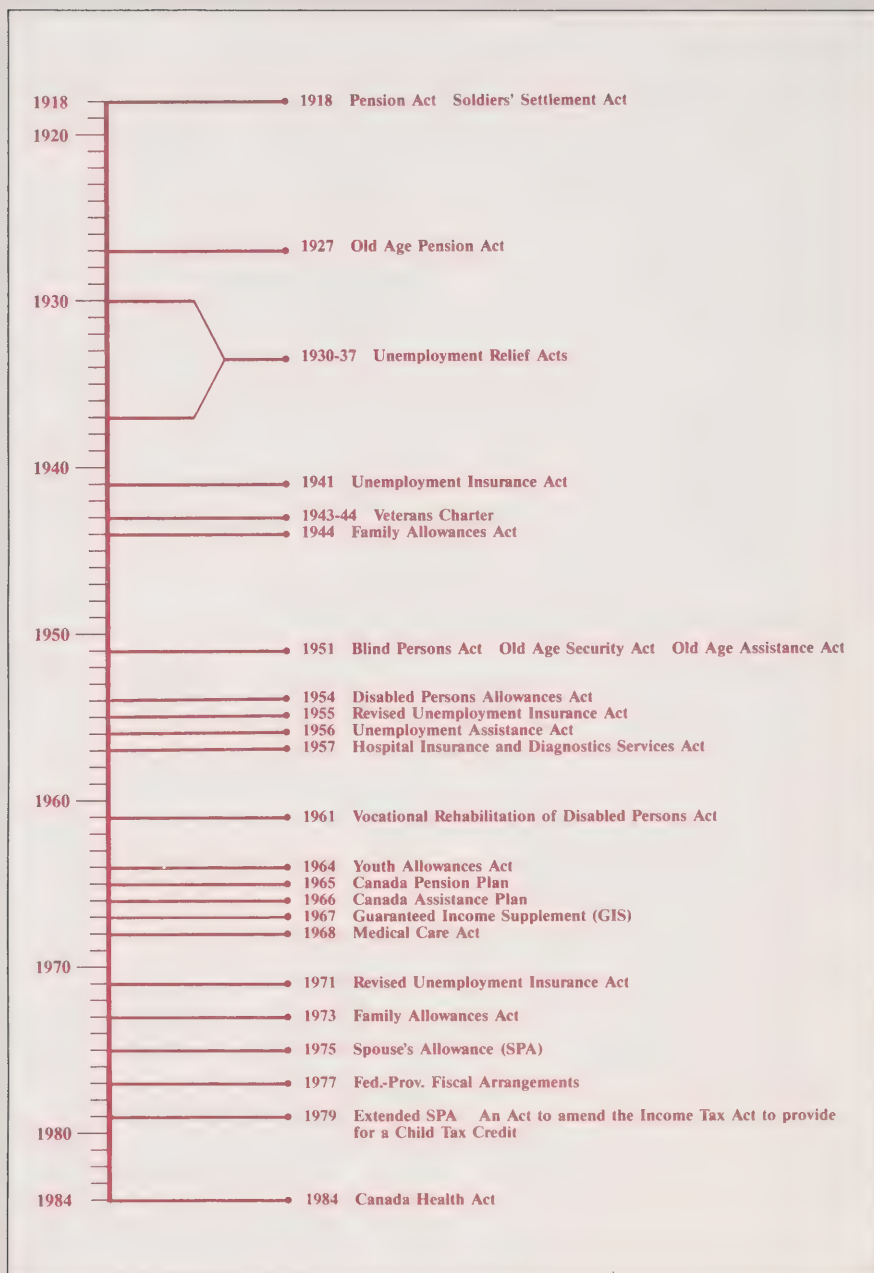
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MAJOR SOCIAL SECURITY LEGISLATION

All levels of government are involved in providing social security to ensure that all Canadians have services and resources essential to meeting their needs. This chart gives a cross-section of major social security legislation implemented by the federal government since 1918.

CHAPTER 6

SOCIAL SECURITY

Canada's social security system encompasses income security, and health and social service programs which ensure that all Canadians have services and resources essential to meeting their basic needs. Financial benefits are available to particular target groups such as seniors, families and disabled persons. Additionally, social assistance programs ensure that no person will have to live in need. Health and social services supplement this network by fulfilling other needs which cannot be met by income assistance. Health services are described separately in Chapter 3.

All three levels of government are involved in providing social security. The Canadian Constitution establishes jurisdictional responsibilities. The federal government administers certain programs for the aged, families and other selected groups, and shares the funding for many provincially administered initiatives. The federal government is responsible for veterans' benefits and programs for native people. The provinces (the term "province" includes provinces and territories, unless otherwise noted) and municipalities provide most health and social services and a variety of financial assistance programs. Voluntary agencies provide additional support.

Canadian social programs have their roots in charitable activities of religious organizations and early attempts to organize relief services at the municipal level. The current programs have evolved over time to meet the needs of a changing society. The current system focuses on particular groups within the population who are most likely to require support. Examples of these groups are the elderly, families, the unemployed and disabled persons.

This chapter is organized initially, by level of government. Within this framework, programs are described by target group or program type. The descriptions are supplemented by a series of tables presenting the number of beneficiaries and expenditures for component programs and the system as a whole.

6.1 Federal income security programs

6.1.1 Senior citizens' benefits

The three programs, Old Age Security (OAS), Guaranteed Income Supplement (GIS) and Spouse's Allowance (SPA), administered by the Department of National Health and Welfare, ensure a minimum level of income for the elderly. The basic Old Age Security pension has been in effect since 1952. It provides monthly benefits to all persons aged 65 years and over who meet the residence requirements. Since 1967, pensioners with little or no other income have also been eligible for the Guaranteed Income Supplement. Application for GIS is required annually. Since October 1975, the Spouse's Allowance has been available to the spouse of a pensioner who has little or no other income. The applicant must be between 60 and 64 years old and must meet residence requirements. In 1979, SPA became available to a low-income surviving spouse of a deceased OAS pensioner. This provision was expanded in 1985 to include widows and widowers aged 60 to 64 years, subject to an income test. Benefits cease at age 65.

In order to be eligible for a full OAS pension, applicants must have resided in Canada for 40 years after the age of 18 or, if age 25 or over as of July 1, 1977, and either resident in Canada on that date or with some prior residence, for 10 consecutive years immediately prior to application. In July 1977, the basis for eligibility was modified to introduce partial pensions based on years of residence. Reciprocal International Social Security Agreements have been signed with a number of countries to enable persons to satisfy minimum residency requirements for establishing eligibility for OAS benefits. A person living in Canada may add periods of residence in another country to his or her years in Canada in order to qualify. The OAS pension is earned at the rate of 1/40th for each year of residence in Canada, subject to a minimum of 10 years for payment in Canada and 20 years for payment abroad. Since January

1988 reciprocal International Social Security Agreements have been in force between the Canadian federal government and Italy, France, Portugal, Greece, Jamaica, the United States, Barbados, Denmark, Sweden, Belgium, Norway, Austria, Saint Lucia and Spain. In addition, agreements have been signed with the Federal Republic of Germany, Luxembourg, Finland and the Netherlands to take effect when ratified by Canada and the other countries.

Both GIS and SPA benefits are income-tested. Entitlement is based on the income of the pensioner/applicant in the previous year, calculated in accordance with the Income Tax Act. The maximum GIS is reduced by \$1 a month for every \$2 a month of other income. In the case of a married couple, income is assumed to be equally shared. The SPA is made up of an amount equal to the OAS pension plus the maximum GIS at the married rate. The amount payable is reduced by \$3 for every \$4 of the couple's combined monthly income until the OAS equivalent is eliminated. After that, the GIS equivalent is reduced by \$1 for every \$4 of combined income. In the case of extended or widowed SPA, the GIS equivalent portion is reduced by a ratio of \$1 for every \$2 of income.

Beginning in 1973, OAS/GIS/SPA benefits were escalated quarterly at the rate of increase in the Consumer Price Index (CPI). A legislative amendment limited indexation increases in the basic OAS pension to 6% for 1983 and 5% for 1984 as part of the federal government's fiscal restraint program. During this period, the GIS rate was increased slightly to compensate for any loss arising from the limited indexation of the basic OAS benefit. Indexation of GIS and SPA was not limited. Full quarterly indexation of the basic pension resumed in 1985.

As of July 1988, the maximum OAS pension was \$315.97. The Guaranteed Income Supplement provided an additional \$375.51 to eligible single pensioners and \$244.57 to each spouse in a married couple. Regular SPA benefits were \$560.54; the rate for the Extended and Widowed SPA was \$618.85. All amounts are paid monthly.

In 1986-87, just over 2.7 million Canadians received OAS benefits; 50% of those recipients also received GIS payments. The Spouse's Allowance program provided income to more than 140,000 Canadians. Total program expenditures for OAS/GIS/SPA were approximately \$13.4 billion during 1986-87.

In addition to benefits from the OAS/GIS/SPA programs, many Canadian seniors also receive income from other income support programs. At

the federal level, the contributory Canada Pension Plan provides monthly benefits to retired contributors (see section 6.3.2). The Unemployment Insurance program offers a lump-sum benefit to insured workers upon retirement (see section 6.3.1). Most provinces provide supplements to low-income seniors, and offer property or shelter-related tax credits, grants or rebates (see sections 6.4.3 and 6.4.4). Furthermore, all three levels of government offer services to elderly Canadians.

6.1.2 Family Allowances

The federal Family Allowances program was initiated near the end of World War II to provide a basic monthly supplement to Canadian families for each child up to age 16. A family assistance program which began in 1956 provided benefits for children of immigrants until they qualified for Family Allowances after one year in Canada. In 1964, the Youth Allowances Act extended coverage to children aged 17 and 18 years who continued to attend school. The Family Allowances Act, 1973, replaced the former legislation. It covers dependent children up to the age of 18. The Act increased benefits to \$20 a month and provision was made to index them annually to correspond to the increases in the cost of living. Indexation is currently (as of January 1986) limited to the amount by which inflation exceeds 3%, based on an increase in the CPI. Normally, the allowances are paid to the mother of the child.

In 1988, the Family Allowance payment was \$32.38 a month on behalf of each child cared for in the parental home. A Special Allowance is payable on behalf of children under 18 who are in the care of institutions, welfare agencies, government agencies or foster parents. The monthly benefit was \$48.31 in 1988.

The Family Allowances Act, 1973, allows a provincial government to specify rates to be paid in its province, based on age of the child, number of children in the family or both. Quebec and Alberta are the only provinces currently exercising this option. Quebec also provides a supplement to the federal Family Allowance. Table 6.3 outlines the rates payable in Quebec and Alberta.

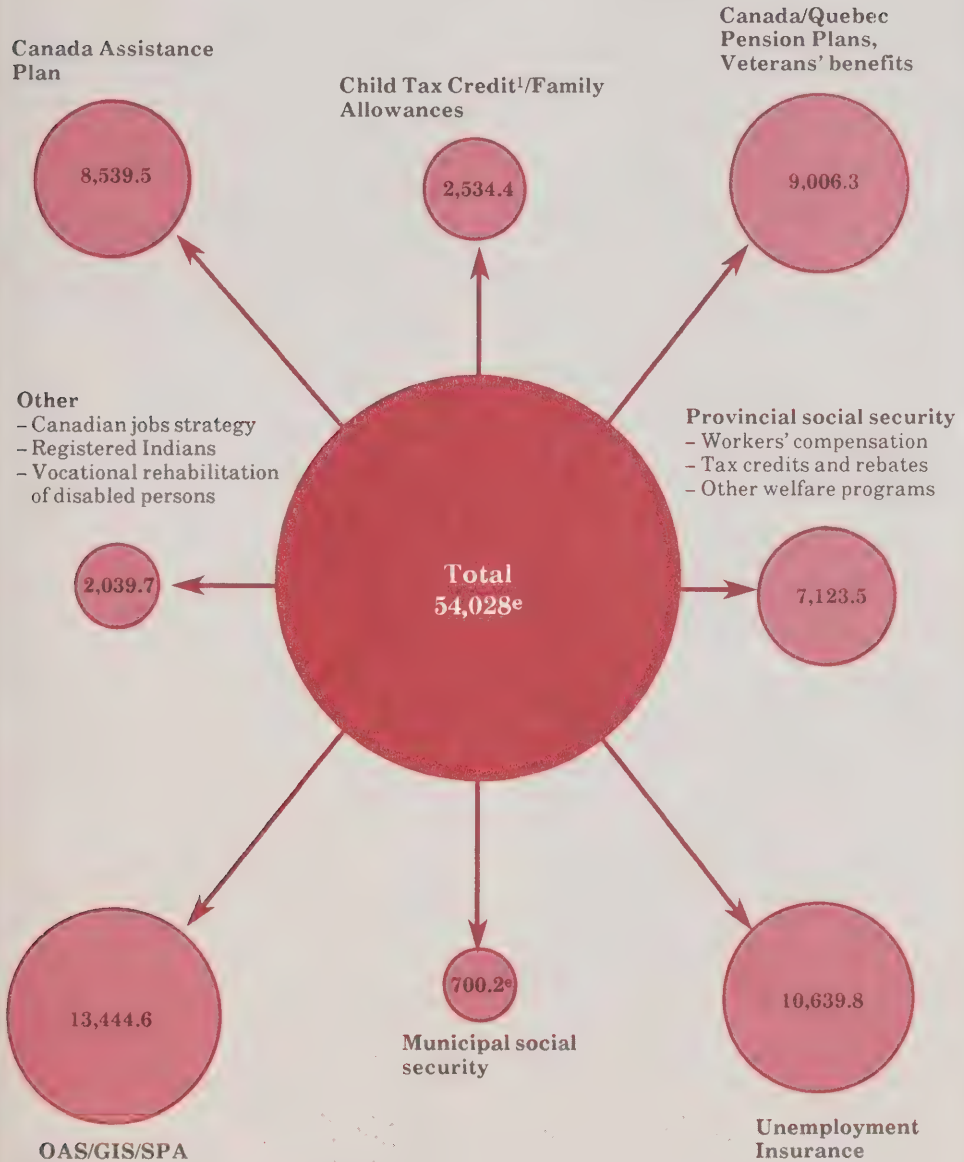
In 1986-87, an average of 3.7 million families received Family Allowances on behalf of 6.6 million children. Over \$2.5 billion was provided to families under the program (Table 6.2).

The Family Allowances program is one of several programs aimed at assisting families. The Child Tax Credit and a variety of provincial initiatives (see sections 6.4.3 and 6.4.4) provide additional support.

Chart 6.1

Social security expenditures by selected programs, 1987

Million dollars



¹ Child Tax Credit data not available.
^e Estimate.

6.1.3 Child Tax Credit

In 1979, the federal government introduced an annual refundable Child Tax Credit for families with children. Application is made through a special form attached to the annual federal personal income tax return. A credit of \$559 per child was payable in 1989 to applicants whose net incomes for 1988 did not exceed \$24,090. The benefit is reduced by 5% of any net income above that level. An annual prepayment of the credit is payable to low-income families who received the Child Tax Credit in the previous year.

For the 1988 tax year, payable in November 1988 for those who met the criteria for prepayment, or in 1989 for those who did not, a supplement to the Child Tax Credit of up to \$100 per child under 7 years of age was available to families. The amount of the supplement was based on the amount by which \$100 exceeded 25% of the total Child Care Expense Deduction in respect of the child. The maximum supplement of \$100 per child was raised to \$200 per child for the 1989 tax year. For the 1986 tax year, figures indicated that approximately \$1.5 billion was paid to just under 2.3 million families, on behalf of 4.7 million children (Table 6.4).

In 1987, a National Strategy on Child Care was developed by Health and Welfare Canada to give parents choices in providing care for their children and to improve the availability, affordability and quality of child care in Canada.

6.1.4 Programs for native peoples

Indians, as other Canadians, are entitled to the benefits of universal federal programs such as Family Allowances, Old Age Security pensions, the Guaranteed Income Supplement, and Child Tax Credit. Indians receive Canada or Quebec pension plan payments, unemployment insurance, workers' compensation and veterans' benefits.

Where there are agreements between the federal and provincial governments, provincial welfare benefits and services are available to registered Indians living on reserves and Crown land, but the amount of help varies according to province. Welfare assistance to registered Indians who do not live on reserves can also vary; most provinces seek recovery from the federal government of the costs of assistance and services.

Federal-provincial arrangements. Individual arrangements have been worked out between the federal government and provincial authorities. All welfare programs in Ontario are available to Indians living there, either on or off reserves. In Quebec, federal contracts with eight social agencies furnish welfare service to Indians in their

geographic jurisdictions; a James Bay agreement provided for a provincially sponsored Cree health and social services board. In agreement with the federal and Alberta governments, the Blackfoot band administers two provincial health and social development programs on the reserve.

The federal Department of Indian Affairs and Northern Development has four main welfare objectives: to ensure that services are comparable to those available to other Canadians in a province; to increase Indian participation in the design and operation of social service programs; to strengthen family life and encourage independence; and to help other government and private agencies provide social services to Indians.

The department's social assistance program provides basic household needs (food, clothing, shelter, fuel). Administration is handled by departmental employees on some reserves, by employees of the band council on others.

Indian residents are subject to the child welfare legislation in their own province. The aim of the departmental child care program is to ensure that provincial and territorial services for neglected, dependent or delinquent children are available to Indian children living on reserves. In conformity with federal-provincial agreements, Indian and Northern Affairs Canada pays for maintenance and protection services to Indian children in Yukon, Manitoba, Ontario, Quebec, Nova Scotia and British Columbia. In provinces where child care services are voluntary, the department pays administrative costs and daily rates for Indian children in foster homes or other agencies.

The department pays for maintenance and care of physically and socially handicapped adults in homes for the aged and other institutions. Indian recipients of such benefits as Old Age Security or the Guaranteed Income Supplement may get additional assistance from the department.

With departmental support, a number of bands administer their own day care centres, senior citizens' homes, and community-based social services. The department also operates a rehabilitation program to avert social problems and reduce the effects of physical disabilities and emotional difficulties.

A work opportunity program gives jobs to people on welfare who are physically able to work. Social assistance funds are used to provide native communities with facilities, for example, roads and services such as day care, instead of direct financial aid. Each project is financed by a reallocation of social assistance funds plus money from other sources (regional appropriations, provincial revenues, band revenues).

The program is an example of the transfer of social service administration from the government to the native people. Approval is granted only to projects that are planned, designed and operated by band councils or their delegated groups.

6.1.5 Veterans of the Canadian forces

Legislation for veterans and their dependents is administered by the Department of Veterans Affairs (DVA) and three affiliated independent agencies: Canadian Pension Commission, Veterans Appeal Board, and the Bureau of Pensions Advocates. Changes in legislation through the years have been made in relation to changing economic and social circumstances of veterans, particularly regarding pensions and allowances. Programs administered by the department include medical treatment, in-home care, housing, educational assistance, counselling and other services. Departmental work is carried out through regional and district offices across Canada.

Pensions for death and disability. The Canadian Pension Commission administers most of the Pension Act, the Compensation for Former Prisoners of War Act and parts of the Civilian War Pensions and Allowances Act.

The Pension Act provides for payment of pensions in respect of disability or death related to military service. These could result from injury or disease incurred during or attributable to service with the Canadian forces in war or arising from or directly connected with peacetime service. Pensions may also be paid to dependents of a disabled former member of the forces or to the surviving dependents of a deceased veteran. The amount of disability pension payable is set out in the Pension Act based on a rate established in 1978 and pensions are indexed in accordance with the Consumer Price Index.

The Compensation for Former Prisoners of War Act provides for compensation to former prisoners of war and their dependents, in addition to any disability pension they may be receiving.

War veterans allowance. The War Veterans Allowance Act provides for allowances to war veterans who, because of age or incapacity, can no longer maintain their employment income at a specified level. Widows, widowers and orphans of qualified veterans are eligible for benefits.

Civilian war allowance. Similar benefits are available to certain groups of civilians and their widows, widowers and orphans, under the Civilian War Pensions and Allowances Act.

The Veterans Appeal Board acts as a court of appeal for aggrieved applicants and recipients.

It reviews decisions of district authorities to ensure that adjudication is consistent with the intent and purview of the War Veterans Allowance Act or the Civilian War Pensions and Allowances Act and that the legislation is applied uniformly throughout Canada. The Board may at any time review and alter its own former decisions.

Programs. The Programs Branch manages a wide range of health, economic support and special programs designed to serve veterans and special categories of civilians who served in close support of the armed forces in wartime, and the spouses, widows/widowers and children of the two groups.

Special programs include a wide range of projects designed to meet specific needs or to perpetuate the memory of deceased veterans. Examples of such programs are: the Assistance Fund, the Educational Assistance Program, funeral and burial assistance, veterans' insurance, and the maintenance of veterans' cemeteries, plots and memorials both in Canada and abroad.

Health care and treatment are provided throughout Canada to eligible veterans and civilians in departmental hospitals and veterans' homes, in contract beds or in the veteran's home and community. Health care and treatment provided outside Canada may be paid for by the department if it relates to a pensioned condition resulting from war service. Prosthetic devices are provided to eligible veterans to help minimize handicaps.

The Veterans Independence Program is being extended to assist an even larger segment of the veterans' population. The objective of the program is to enable the aging veteran population to remain independent and healthy in their own homes and communities.

The Programs Branch also administers a range of legislative measures providing social and financial benefits and provides support services to the Field Operations Branch, the Canadian Pension Commission, the Bureau of Pensions Advocates, the Veterans Appeal Board and Service Benevolent Funds.

The Bureau of Pensions Advocates provides a free legal aid service to persons seeking to establish claims under the Pension Act, the Civilian War Pensions and Allowances Act and allied statutes and orders. This service includes: the initiation of claims; the searching of records; the identification of evidence; the counselling of applicants; and the preparation and presentation of claims to the Canadian Pension Commission, and to the Entitlement and Assessment Boards of the Commission. It also represents applicants for benefits

under the War Veterans Allowance Act on appeals to the Veterans Appeal Board.

The Veterans Land Administration is primarily concerned with assisting veterans, their heirs, devisees or personal representatives with acquiring title to the property on which the veteran was established. This establishment program was terminated in March 1975 and the department no longer is involved in the purchase of new property. However, as of March 31, 1988, there were still over 18,000 properties registered under the name of the Director, the Veterans Land Act, which represents a total indebtedness of over \$100 million.

6.1.6 Training allowances

Employment and Immigration Canada provides training opportunities to enable workers to respond to the demand for special work skills. Under the Canadian Jobs Strategy, participants are paid allowances to encourage them to upgrade their abilities. For details of Employment and Immigration Canada's programs, see Chapter 5.

6.2 Income assistance

6.2.1 Canada Assistance Plan

Allowances for the blind (1937, 1952), the disabled (1954) and unemployed or unemployable (1955) were replaced by the more flexible and comprehensive provisions of the Canada Assistance Plan (CAP) in 1966. This plan allows the federal government to share equally with the provinces in providing direct financial assistance to families and individuals who are in need, regardless of the cause. Eligibility is based on a needs test which examines the household's basic requirements and the resources (including income and available assets) available to meet them. Assistance payable is based on the difference between these. Although each province designs its own program and benefit structure, CAP specifies that assistance should cover certain items. The range of assistance includes food, shelter, fuel, utilities, household supplies, items required to carry on a trade, certain welfare services, and specified health and social services. The costs of work activity projects and certain other employment-related programs are also sharable through CAP. Table 6.7 shows beneficiaries and expenditures for direct financial assistance under CAP.

The Canada Assistance Plan also provides for cost-sharing of care in homes for special care, including homes for the aged, nursing homes, child care facilities and hostels for battered women and

children. Since 1977, the major portion of federal costs related to long-term adult residential care have been subsumed under the Federal-Provincial Fiscal Arrangements and Federal Post-Secondary Education and Health Contributions Act. Costs of maintaining children in foster homes as well as other protective and preventative services for children are also shared under CAP.

6.3 Income insurance

6.3.1 Unemployment Insurance

Due to the major economic depression which Canada shared with other nations during the 1930s, the federal government was thrown into a major role as a provider of basic financial support to many families who were left destitute. In 1940, the federal government took the initiative and secured agreement of the provinces to amend the British North America Act to permit it to introduce a nationwide program of unemployment insurance, funded through employer and employee contributions.

Originally designed to provide income protection for low-income earners, the Unemployment Insurance program was revised several times until, in 1971, it was made universally applicable to all members of the labour force with certain minor exceptions. Benefits were extended to persons at all levels of earnings. The program was also broadened to provide special benefits for those suffering from extended sickness, to those leaving the labour force temporarily because of pregnancy and childbirth or adoption, to unemployed fishermen, to persons enrolled in national training programs, to those participating in work-sharing projects, and to persons involved in job training.

The Unemployment Insurance program is funded by employer and employee contributions. Funding for certain benefits is provided by the federal government's consolidated revenue fund. Further information on the Unemployment Insurance program and related statistical data are provided in Chapter 5.

The Unemployment Insurance program is only one of the social security measures aimed at workers and their families. The Canada Pension Plan and provincial Workers' Compensation programs are additional income insurance programs offering financial protection.

6.3.2 Canada and Quebec pension plans

The Canada Pension Plan and the Quebec Pension Plan (CPP/QPP), introduced in 1966, are considered to be social insurance programs. The plans are funded by equal contributions of 2.0%

of contributory earnings from the employer and 2.0% from the employee. Self-employed persons contribute the full 4.0%. In 1988, contributory earnings were those falling between the Year's Basic Exemption (YBE) of \$2,600 and the Year's Maximum Pensionable Earnings (YMPE) of \$26,500. The CPP applies to all provinces, except Quebec, which developed its own parallel social insurance program, the Quebec Pension Plan (QPP). The programs provide the same types of benefits to contributors and their families, with some variations in benefit levels and specific eligibility. Both plans provide retirement benefits, survivor's benefits to a widow/widower and dependent children, a death benefit, disability benefits to contributors forced to cease employment because of disability, and benefits for their dependent children.

There is reciprocity between CPP and QPP to ensure coverage for virtually all workers in the labour force. A dual contributor who has at different times made contributions to each of the plans applies for benefits to the plan relating to his or her usual place of residence at the time of application. In the case of survivor's benefits, the contributor's place of residence at the time of death determines which plan will pay benefits.

As with the Old Age Security program, International Social Security Agreements for the Canada Pension Plan have been signed with 14 countries. Agreements have been signed, for the Quebec Pension Plan, with eight countries.

Retirement pensions were previously payable beginning at age 65; however, persons still working could continue contributing until the age of 70. Both QPP and CPP contributors have the option of receiving retirement benefits as early as age 60. Benefits are reduced by 0.5% for each month prior to age 65, and increased by the same amount for each month after that age. Retirement pensions are calculated at the rate of 25% of the contributor's average lifetime adjusted pensionable earnings. The maximum monthly retirement pension (age 65) for 1988 was \$543.06.

Survivor's pensions are payable to the family of a contributor who dies, after having contributed to the CPP or QPP for two of the last three, or five of the last 10 calendar years for which he or she would have been eligible to contribute. The pension includes a flat-rate component plus an amount based on the imputed retirement pension of the deceased contributor. Age and family status of the surviving spouse affect benefit calculations. In 1988, the maximum benefits payable to a surviving spouse ranged from \$302.61 to \$325.84 monthly under the CPP. QPP benefits ranged

from \$325.84 to \$528.15. As of January 1987, persons receiving CPP survivor's benefits continued to do so if they remarried; QPP has offered this provision since 1984.

Disability pensions are provided to contributors with a severe and prolonged mental or physical disability that demands withdrawal from the labour force. Under the QPP, workers who are 60 years of age or over and who are unable to fulfil their usual role in the work force because of disability, are considered eligible. Applications for either a CPP or a QPP disability pension are subject to medical review. Previously, applicants were required to contribute for one-third of the calendar years in the contributory period and for at least five of the 10 years prior to disablement. Both CPP and QPP contributions are now required for two of the last three, or five of the last 10 years preceding disablement. Pensions may begin after a three-month waiting period, during which time Unemployment Insurance is available.

As with survivor's benefits, the disability pension consists of a flat-rate component and an imputed, earnings-related portion of the retirement component. In 1988, the maximum disability pension under CPP/QPP was \$660.94; the flat-rate component of this was \$253.64 for each.

Combined pensions consisting of a surviving spouse's pension and a retirement or disability pension, may be payable to widowed contributors who are otherwise eligible for a retirement or a disability pension.

Children's benefits are payable on behalf of the dependent child of a disability pensioner and are available (orphan's benefits) for dependent children of a surviving spouse. Generally, benefits are paid until the child reaches the age of 18; they may be extended to age 25 if the child continues to attend school. If education is interrupted, the client's benefit ceases and is reinstated when the child returns to full-time school attendance. Also, dependent children are eligible for up to two CPP benefits if both parents' earnings have been lost through disability or death. Previously, the child could receive only one benefit. In 1988, the monthly CPP children's benefit was \$98.96 per child; the QPP rate was \$29.00.

A death benefit is payable to the estate of a deceased contributor who has contributed to the plan for a minimum qualifying period of three years. In 1988, the maximum death benefit was \$2,650 under both CPP and QPP.

Sharing pension credits. If a marriage has ended in divorce or annulment on or after January 1, 1987, the Canada Pension Plan credits earned by

both spouses during their life together are divided equally between them. This division is mandatory as soon as the Minister of National Health and Welfare receives the information necessary to take this action unless a spousal agreement was drawn up in a province which has a law that allows spouses to contract out of a division of CPP pension credits and such a waiver is included in the spousal agreement. (At present, no province has such a law.)

If a legal marriage ends in separation and if the separation has lasted one year, either spouse may apply for a division of pension credits. There is no time limit for making application for a division of credits following separation, except in the event of the death of one of the separated spouses.

Former partners in a common-law relationship may apply for a division of pension credits within four years after they have separated, if they have been living apart for one year. (In the case of divorce or annulment prior to January 1, 1987, application for a division of pension credits must be made within three years of the finalized divorce and marriage must have been of 36 months' duration.)

Spouses in a continuing marriage and partners in a common-law relationship may apply to receive an equal share of the retirement pension earned by both parties during their life together. Both spouses must be at least 60 years of age and have applied for the retirement pensions to which they are entitled under the plan. The Quebec Pension Plan does not provide for the assignment of pensions. An assignment of pensions may be precluded by an explicit prior agreement between the parties provided that surrender of this right to pension assignment is explicitly permitted under provincial legislation. (At present, no such provision exists in provincial family laws.)

An assignment under the CPP will be denied if one spouse is receiving a pension under the Quebec Pension Plan which does not provide for assignment of pensions between spouses.

6.3.3 Federal social service programs

In addition to the programs providing direct financial benefits, the federal government administers and funds a wide range of service and support programs, health programs, and grants and contributions to a variety of individuals and organizations for research or program delivery, employment programs and others. Health and employment programs are described in Chapters 3 and 5, respectively. The social service components under CAP were described in section 6.2.1. Following are a few other social support programs administered

by the Department of National Health and Welfare; they are intended as examples and do not constitute a complete listing.

The Seniors Independence Program which began in 1988 provides financial support for health, education or social welfare projects designed to improve the quality of life for seniors. The emphasis of the program is on community-based projects that significantly involve seniors and promote independent living. The program includes projects of a multi-year nature as well as short term activities such as conferences and workshops. Projects may be local, regional or national in scope.

The New Horizons program was established in 1972 with the objective of helping to alleviate feelings of social isolation or loneliness often experienced by the elderly. Grants are available to senior citizens' groups to assist them in helping themselves, other Canadians and the community. In 1986-87, there were over 2,000 projects funded by New Horizons; program expenditures for the year were over \$10 million.

The National Welfare Grants program was implemented in 1962 to help develop and strengthen social services and to provide funds for social welfare research. Grants may be given to provincial or municipal social service departments, non-governmental organizations and universities. Fellowships are provided to individuals seeking advanced training in social welfare. In 1986-87, the program expenditure was over \$6 million.

Under the Vocational Rehabilitation of Disabled Persons program (VRDP), the federal government contributes 50% of the costs incurred by provinces in providing vocational rehabilitation services to physically and mentally disabled persons. Services include counselling, assessment, restorative services, provision of certain technical aids and the provision of maintenance allowances on an individual need basis. Programs may be administered directly by provincial governments or through provincially supported agencies. In 1986-87, the federal government provided over \$88 million to the VRDP program.

Family Violence Initiative. In 1988, the federal government announced a family violence initiative designed to enhance assistance to Canadian families affected by violence, in particular battered women and their children. The new funds will be allocated to six departments to modify and expand their existing activities in this area.

Numerous other grant and contribution programs provide funding for family planning, health

research, health protection, health and other services to Indians and volunteer activities.

6.4 Provincial programs

Provincial governments provide a variety of income security programs to protect and maintain the well-being of Canadians. The initiatives may be funded solely by the province; some are federally cost-shared. The following program areas are outlined in this section: social assistance, workers' compensation, tax credit programs, direct income supplements and social services.

6.4.1 Social assistance

Although the federal government shares in the costs of financial aid for the needy (through CAP), each province bears responsibility for the design, administration and delivery of its own social assistance program. In nine of the 12 jurisdictions, benefits to persons who need long-term assistance are provided by the provincial headquarters, while short-term and emergency payments are issued through regional offices of the provincial department of social services or its counterpart. However, in Nova Scotia, Ontario and Manitoba, benefits to meet long-term needs are issued provincially and all other payments (persons in short-term need, emergency cases, transients) are the responsibility of the municipalities.

Social assistance clients may receive benefits to cover costs of food, shelter, fuel, clothing, items of special need and certain other items deemed to be essential to the household. Social services, including training and counselling, drug benefits and other health services may also be provided. Benefit levels vary among jurisdictions and may be affected by the applicant's age, health and employability.

In 1985, the federal, provincial and territorial governments entered into a three-year agreement to enhance the employability of social assistance recipients. Funds that otherwise would have been spent on social assistance recipients under the Canada Assistance Plan can be used to expand employability programs and thus help them achieve greater self-sufficiency.

6.4.2 Workers' compensation

Provincial workers' compensation programs provide financial benefits as well as medical and rehabilitative services to workers injured while at work. The programs are administered by provincial boards on behalf of industries and other employers. Funding is provided entirely from employers' contributions; employers' contribution rates vary according to the type of enterprise.

Chapter 5 provides details of eligibility and benefits, and also outlines the number of claims and benefit expenditures.

6.4.3 Tax credits

In nearly all provinces, tax credits, rebates, or shelter subsidies/grants are available to both homeowners and renters. These programs have been implemented to support families and the elderly in coping with the high costs of shelter.

The first programs refunded or deferred most property and school taxes levied on the residences of elderly homeowners. In some cases smaller rebates were paid to homeowners, usually relating the amount of the rebate to income. In the 1970s, programs were created to assist renters, particularly the elderly, either through occupancy costs rebates which go directly to the renter, or through shelter allowances which pay all or part of the rent that exceeds a percentage of income ranging from 20% to 30%. The rebates of property tax and occupancy costs are administered by the income tax or property tax collection authorities; shelter allowances are usually paid by the provincial housing authorities. Additional types of tax credit programs have since been introduced by the provinces. For example, Ontario has expanded its system of tax credits and now offers a home-ownership savings plan tax credit and Manitoba provides a cost of living tax credit. In total, the provinces offer over 40 tax credit/rebate and shelter assistance programs to Canadians. These provincial initiatives form part of the social security system and account for substantial expenditures.

6.4.4 Income supplements

Provincial income supplement programs have been designed to assist the elderly, the disabled or low-income families.

Senior citizens. All but four provincial governments have instituted income supplements for the elderly. In general, these programs provide a monthly, quarterly or annual income supplement payment to OAS beneficiaries in receipt of the GIS benefit. Three provinces and both territories also extend benefits to SPA recipients. Manitoba and Alberta benefits are payable also to residents over 55 whose incomes do not exceed specified levels. In 1986, the Saskatchewan Pension Plan was established to create a retirement pension in the absence of a pension or to supplement an existing pension.

Disabled persons. There are many types of financial support available to disabled individuals. Many receive social assistance under the provincial

programs. Others may receive benefits under provincial vocational rehabilitation or income assistance programs, through workers' compensation, federal training allowances or Unemployment Insurance.

Provincial programs cost-shared by the federal government under the Vocational Rehabilitation of Disabled Persons Act are designed to assist physically and mentally disabled persons to become capable of pursuing gainful occupation such as employment in the open labour market, self-employment, homemaking, farm work, sheltered employment or other paid work. In 1986-87, approximately \$176 million (total federal and provincial contributions) were spent through the VRDP program.

Income assistance programs for the disabled include Guaranteed Available Income for Need (GAIN) for the handicapped in British Columbia, Alberta's Assured Income for the Severely Handicapped (AISH), and Ontario's Guaranteed Annual Income System for the Disabled (GAINS-D). Newfoundland, Quebec and Ontario offer financial assistance to families caring for a disabled child at home.

Families. Several provinces offer income supplements to low-income families. In May 1988, Quebec initiated its Parental Wage Subsidy Program (PWA) which provides a supplement to employment income and reimbursement of some day care expenses. For families with children, this program replaces the Work Income Supplement Program. Ontario's Work Incentive Program provides a supplement to social assistance recipients who return to work. The Child Related Income Support Program (CRISP) in Manitoba supports low-income families with children. Saskatchewan's Family Income Plan (FIP) is an income-tested program for working and non-working families and includes a provision for a dependent spouse and all dependent children.

6.4.5 Provincial social services

A broad range of personal social services is provided across Canada. The funding, administration and delivery of such services are particular to each province and municipal jurisdiction. The federal government, through the Canada Assistance Plan, shares in the costs of many of these programs.

These programs vary according to the community and family environment and are geared to the disadvantaged persons who may need support to take part in community life. Many programs are oriented toward prevention of need while others involve long-term services. An

underlying philosophy is that there should be a system of support for independent living in the home environment, and services to prevent, delay or reduce the need for institutional care of the elderly and disabled. Services also compensate for decreased family support resulting from increased participation of women in the workforce, the geographic mobility of families and the high rate of marriage breakdown.

Services to families and individuals which are supported under the Canada Assistance Plan include: crisis intervention, information and referral, and social integration services to persons who are, or are at risk of becoming, isolated from community life; protective and developmental services which are oriented toward children as well as day care services for children; and home support services that enable persons to remain in their own homes. Several provinces have introduced programs encouraging disabled persons to maintain an independent life style. Services may include provisions of aids and devices and home support. Personal, budget and family counselling assist persons with social problems and aid in preventing further problems. There are programs aimed at reducing the prevalence and dealing with the consequences of family violence. Communities offer activity centres, enrichment programs, sheltered workshops and vocational rehabilitation and day programming for the aged. Provinces also provide nursing and medical services, nutrition counselling, nursing home and intermediate care, residential care, and ambulatory health services. (See Chapter 3 for information on health services.)

6.5 International welfare

Canada is involved in social development activities of the United Nations (UN), particularly with the United Nations International Children's Emergency Fund (UNICEF) and in social programs of the Organization for Economic Cooperation and Development (OECD). Federal and provincial departments and agencies participate in the work of several international non-governmental organizations. Program information is exchanged on social affairs with UN agencies, the Council of Europe, OECD, the Overseas Development Institute and social affairs departments in other countries.

Canadian officials also participate in the International Social Security Association, the International Council on Social Welfare, and the social security program of the International Labour Organization.

6.6 Voluntary contribution

Because of the need for community involvement in social services, voluntary agencies continue to play a major role in the administration of social services in Canada.

In 1987, approximately 50,000 agencies were registered as charitable organizations in Canada. In the health and welfare areas they covered community support activities ranging from those which provide direct care for individuals in need to the operation of broad community services.

Voluntary work represents a major contribution to the operation of health and welfare organizations. A survey conducted by Statistics Canada in 1987 indicated that 27% of the adult population participates in voluntary work. Much of this effort is directed to the health and welfare field in services, transportation, administration and client support activities.

6.7 Analysis of expenditures

Canada's social security system delivered a total of \$54.0 billion in direct financial benefits to Canadians in 1986-87, as compared with \$42.9 billion in 1982-83. During the five-year period, Old Age Security (including Old Age Security, Guaranteed Income Supplement and Spouse's Allowance) remained the largest program, accounting for approximately one-quarter of the total social security expenditure. The Spouse's Allowance component of the Old Age Security program and the retirement component of the Canada/Quebec Pension plans realized the greatest percentage increases in expenditures. The Spouse's Allowance component increased 114% from \$221.5 million in 1982-83 to \$473.2 million in 1986-87. The retirement component of CPP/QPP increased 97% from \$2,564.6 million in 1982-83 to \$5,054.0 million in 1986-87. These increases are largely attributable to expanded eligibility criteria.

Sources

- 6.1 - 6.1.3, 6.1.6 - 6.7 Policy Communication and Information Branch, Department of National Health and Welfare.
- 6.1.4 Communications Branch, Department of Indian Affairs and Northern Development.
- 6.1.5 Directorate of Communication Services (Charlottetown), Department of Veterans Affairs.

FOR FURTHER READING

Selected publications from Statistics Canada

- Unemployment Insurance Statistics, monthly. 73-001
- Annual Report, Benefit Periods Established and Terminated under the Unemployment Insurance Act, annual. 73-201
- Workmen's/Workers' Compensation: Social Security, Provincial Programs, 1980, 63 p., 1980. 86-501
- Criminal Injuries Compensation, triennial. 86-502
- Unemployment Insurance: Social Security, National Programs, Volume 2, 1984, 292 p., 1984. 86-506
- Canada and Quebec Pension Plans: Social Security, National Programs, Volume 3, 1984, 180 p., 1984. 86-507
- Family Allowances and Related Programs: Social Security, National Programs, Volume 4, 1982, 104 p., 1982. 86-508
- Old Age Security, Guaranteed Income Supplement and Spouse's Allowance: Social Security, National Programs, Volume 5, 1982, 81 p., 1982. 86-509
- Social Allowances and Services: Social Security, National Programs, Volume 6, 1982, 79 p., 1982. 86-510
- Other Programs: Social Security, National Programs, Volume 7, 1982, 198 p., 1982. 86-511
- Health and Social Support, 1985, 232 p., 1987. 11-612

More information about these publications is available from Statistics Canada. See Appendix F for a complete list of Statistics Canada offices.

TABLES

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6.1 Senior citizens' benefits, beneficiaries and net benefit expenditures, 1982-87¹

Province or territory	Old Age Security (OAS), annual average number of beneficiaries					
	1982	1983	1984	1985	1986	1987
Newfoundland	44,206	45,384	46,745	48,086	49,686	50,808
Prince Edward Island	14,850	15,105	15,409	15,618	15,835	16,029
Nova Scotia	92,959	95,230	97,341	99,467	102,166	104,402
New Brunswick	71,075	72,831	74,582	76,248	78,238	80,068
Quebec	570,221	586,104	601,730	616,580	635,335	655,714
Ontario	857,468	878,351	898,651	922,413	955,854	990,665
Manitoba	121,716	124,145	126,325	128,645	131,629	134,201
Saskatchewan	116,184	118,750	121,126	123,448	126,197	128,481
Alberta	159,472	163,944	168,786	174,177	181,436	188,579
British Columbia	291,172	299,738	308,581	317,926	331,271	344,830
Yukon	704	730	750	762	804	843
Northwest Territories	1,249	1,285	1,312	1,343	1,349	1,400
International operations ²	1,204	1,960	3,144	4,415	6,961	10,657
Canada	2,342,480	2,403,557	2,464,482	2,529,129	2,616,762	2,706,676
OAS, net benefit expenditures (\$'000,000)						
	1982	1983	1984	1985	1986	1987
Newfoundland	115.9	132.3	145.6	156.5	168.4	179.1
Prince Edward Island	38.9	44.0	47.9	50.7	53.4	56.3
Nova Scotia	243.7	277.7	302.3	323.0	345.4	367.8
New Brunswick	186.6	212.4	231.8	247.7	264.5	281.8
Quebec	1,499.2	1,711.8	1,871.4	2,006.5	2,157.3	2,314.1
Ontario	2,245.0	2,559.0	2,788.5	3,000.8	3,244.5	3,495.0
Manitoba	318.2	360.8	391.4	416.8	444.4	471.3
Saskatchewan	304.4	345.7	376.1	400.9	426.4	452.3
Alberta	419.1	479.6	526.0	568.3	616.2	666.4
British Columbia	762.6	872.9	957.2	1,032.4	1,120.6	1,214.8
Yukon	1.9	2.2	2.4	2.6	2.8	3.0
Northwest Territories	3.5	3.8	4.2	4.4	4.7	5.1
International operations ²	1.7	2.9	4.2	5.3	9.1	12.9
Canada	6,140.6	7,005.3	7,649.0	8,215.9	8,857.7	9,520.0
Guaranteed Income Supplement (GIS), annual average number of beneficiaries						
	1982	1983	1984	1985	1986	1987
Newfoundland	35,685	36,263	37,061	38,291	39,652	40,196
Prince Edward Island	10,671	10,614	10,645	10,795	10,914	10,897
Nova Scotia	61,164	61,178	61,882	62,886	64,525	64,461
New Brunswick	47,067	47,704	48,424	49,790	51,172	51,562
Quebec	359,966	366,427	369,411	376,382	385,965	391,496
Ontario	377,961	370,194	366,642	373,840	386,762	393,438
Manitoba	65,304	63,796	62,991	64,751	66,343	66,881
Saskatchewan	60,813	59,461	58,789	60,231	61,985	62,982
Alberta	81,270	78,928	79,230	82,320	85,626	87,892
British Columbia	133,142	129,992	129,850	134,663	141,528	144,362
Yukon	346	343	370	382	406	433
Northwest Territories	944	977	1,048	1,075	1,092	1,135
International operations ²	492	893	1,468	2,093	3,051	4,327
Canada	1,234,823	1,226,770	1,227,810	1,257,439	1,299,019	1,320,059
GIS, net benefit expenditures (\$'000,000)						
	1982	1983	1984	1985	1986	1987
Newfoundland	72.6	80.5	86.4	99.0	110.0	114.8
Prince Edward Island	20.7	22.4	23.6	27.0	29.6	30.5
Nova Scotia	114.8	125.0	131.9	150.4	166.4	172.0
New Brunswick	90.2	99.6	105.6	121.4	134.5	139.5
Quebec	680.9	752.7	786.1	902.3	1,009.9	1,043.2
Ontario	648.2	686.1	711.0	838.8	944.5	978.2
Manitoba	116.5	121.9	126.5	150.4	166.4	172.0
Saskatchewan	111.8	117.9	122.6	144.0	160.1	166.7

6.1 Senior citizens' benefits, beneficiaries and net benefit expenditures, 1982-87¹ (concluded)

Province or territory	GIS, net benefit expenditures (\$'000,000)					
	1982	1983	1984	1985	1986	1987
Alberta	146.6	154.7	161.9	192.8	217.4	228.1
British Columbia	235.3	248.7	259.9	310.3	350.1	366.7
Yukon	0.8	0.9	1.0	1.1	1.3	1.4
Northwest Territories	2.3	2.6	2.9	3.3	3.7	4.0
International operations ²	1.3	3.3	5.1	12.2	25.4	34.2
Canada	2,242.0	2,416.3	2,524.5	2,953.0	3,319.4	3,451.4
	Spouse's Allowance (SPA), annual average number of beneficiaries					
	1982	1983	1984	1985	1986	1987
Newfoundland	3,437	3,537	3,547	3,559	4,287	5,108
Prince Edward Island	750	760	748	785	961	1,090
Nova Scotia	4,739	4,676	4,770	4,845	5,967	7,016
New Brunswick	3,794	3,932	4,005	4,212	5,264	6,109
Quebec	26,375	27,007	27,281	27,971	35,591	44,202
Ontario	22,946	23,086	23,761	25,287	31,218	41,568
Manitoba	4,374	4,235	4,255	4,563	5,562	6,563
Saskatchewan	4,266	4,060	3,908	4,181	4,984	5,911
Alberta	5,445	5,225	5,350	5,760	6,813	8,689
British Columbia	8,336	8,226	8,416	9,090	11,121	13,594
Yukon	17	20	19	23	30	52
Northwest Territories	40	54	72	68	68	97
International operations ²	8	26	51	72	118	221
Canada	84,527	84,843	86,182	90,415	111,984	140,219
	SPA, net benefit expenditures (\$'000,000)					
	1982	1983	1984	1985	1986	1987
Newfoundland	11.1	12.4	12.9	13.4	17.6	22.3
Prince Edward Island	2.1	2.3	2.4	2.5	3.6	4.4
Nova Scotia	12.5	13.5	14.3	14.6	20.4	26.1
New Brunswick	10.6	11.9	12.5	13.2	18.6	23.5
Quebec	66.0	73.5	75.8	78.6	111.7	147.5
Ontario	47.4	51.5	55.7	61.0	87.5	130.3
Manitoba	10.5	11.1	11.7	12.7	17.2	22.1
Saskatchewan	10.5	11.0	11.2	12.1	16.0	20.4
Alberta	12.8	13.4	14.3	15.9	21.3	29.4
British Columbia	19.2	20.3	21.6	24.0	32.5	44.4
Yukon	—	0.1	0.1	0.1	0.1	0.2
Northwest Territories	0.2	0.3	0.3	0.4	0.4	0.6
International operations ²	—	0.1	0.2	0.4	0.8	1.9
Canada	202.8	221.5	232.9	248.8	347.8	473.2

¹ Fiscal years ending Mar. 31.² All persons paid under international agreements, including persons outside Canada.**6.2 Family Allowances, beneficiaries and net benefit expenditures, 1985-87¹**

Province or territory	Annual average number of children ²		
	1985	1986	1987
Newfoundland	192,550	187,942	182,804
Prince Edward Island	36,186	36,037	35,854
Nova Scotia	235,544	233,421	231,494
New Brunswick	205,111	202,220	199,519
Quebec	1,648,493	1,631,004	1,624,833
Ontario	2,271,087	2,274,963	2,294,298
Manitoba	289,446	290,378	291,176
Saskatchewan	293,585	294,987	294,944
Alberta	668,544	670,476	675,559
British Columbia	726,468	726,319	726,376
Yukon	7,116	7,104	7,218
Northwest Territories	20,249	20,496	20,406
Canada	6,594,381	6,575,347	6,584,481

6.2 Family Allowances, beneficiaries and net benefit expenditures, 1985-87¹ (concluded)

Province or territory	Annual average number of families		
	1985	1986	1987
Newfoundland	97,794	97,385	96,624
Prince Edward Island	18,575	18,676	18,694
Nova Scotia	129,594	129,580	129,411
New Brunswick	111,004	110,684	110,407
Quebec	943,458	938,629	938,896
Ontario	1,264,423	1,269,423	1,281,997
Manitoba	150,929	152,044	153,180
Saskatchewan	146,666	147,488	147,506
Alberta	355,198	356,138	358,479
British Columbia	401,889	402,471	402,526
Yukon	3,902	3,927	4,010
Northwest Territories	9,205	9,418	9,452
Canada	3,632,637	3,635,861	3,651,183
	Net benefit expenditures (\$'000,000)		
	1985	1986	1987
Newfoundland	70.4	71.1	69.9
Prince Edward Island	13.2	13.6	13.7
Nova Scotia	86.4	88.6	88.6
New Brunswick	75.0	76.6	76.3
Quebec	598.3	614.9	624.9
Ontario	837.0	870.3	885.0
Manitoba	106.3	110.5	111.9
Saskatchewan	107.7	112.0	113.1
Alberta	246.2	256.2	261.4
British Columbia	267.1	276.3	279.0
Yukon	2.6	2.7	2.8
Northwest Territories	7.5	7.9	7.9
Canada	2,417.8	2,500.6	2,534.4

¹ Fiscal years ending Mar. 31.² Number of children on whose behalf Family Allowances are paid.**6.3 Monthly Family Allowances, 1984-88 (dollars)**

Item	1984	1985	1986	1987	1988
Federal rates					
Family allowance	29.95	31.27	31.58	31.93	32.38
Special allowance	44.68	46.65	47.12	47.64	48.31
Alberta variation					
Child					
0 - 6 years	23.10	24.50	25.00	25.20	25.50
7 - 11 years	28.70	30.00	30.50	30.80	31.00
12 - 15 years	38.60	39.80	40.40	40.80	41.00
16 - 17 years	43.30	45.00	45.50	46.40	46.70
Quebec variation					
Child					
0 - 11 years					
1st child	17.98	18.77	20.19	20.41	20.70
2nd child	28.55	29.81	30.11	30.44	30.87
3rd and each additional child	69.49	72.55	73.28	74.81	77.09
Child					
12 - 17 years					
1st child	25.11	26.44	27.94	28.25	28.65
2nd child	35.68	37.48	37.86	38.28	38.82
3rd and each additional child	76.62	80.22	81.03	82.65	85.04
Quebec Family Allowances^{1,2}					
1st child	7.90	7.90	8.22	8.56	8.94
2nd child	10.55	10.55	10.97	11.42	11.92
3rd child	13.18	13.18	13.71	14.27	14.90
4th and each additional child	15.80	15.80	16.43	17.10	17.85

¹ Paid on behalf of children who are not wards of the province.² In December 1986, an amendment to provincial legislation converted Quebec Family Allowances into a tax credit effective from the 1986 taxation year.

6.4 Child Tax Credit program, beneficiaries and benefit expenditures, 1984-86¹

Province or territory	Number of children claimed		
	1984	1985	1986
Newfoundland	159,407	168,865	158,205
Prince Edward Island	34,493	32,504	29,262
Nova Scotia	192,434	186,321	174,576
New Brunswick	183,305	171,247	159,573
Quebec	1,279,744	1,290,820	1,224,766
Ontario	1,738,018	1,625,486	1,461,821
Manitoba	251,004	247,024	230,900
Saskatchewan	241,576	232,539	240,218
Alberta	465,574	474,349	462,727
British Columbia	514,364	533,138	487,982
Yukon	5,129	4,817	7,091
Northwest Territories	15,333	15,773	11,913
Outside Canada	4,106	6,739	5,704
Canada	5,084,487	4,989,622	4,654,738
	Number of families receiving credit		
	1984	1985	1986
Newfoundland	77,291	83,045	77,620
Prince Edward Island	16,393	15,834	14,130
Nova Scotia	98,363	96,661	89,810
New Brunswick	92,529	87,937	81,410
Quebec	690,985	684,472	640,880
Ontario	857,376	792,314	690,820
Manitoba	114,990	114,166	107,460
Saskatchewan	108,291	104,095	106,070
Alberta	218,994	222,330	212,490
British Columbia	256,320	263,854	240,430
Yukon	2,545	2,250	2,250
Northwest Territories	6,001	6,044	5,480
Outside Canada	2,238	3,429	2,620
Canada	2,542,316	2,476,431	2,271,460
	Total amount of credits (\$'000,000)		
	1984	1985	1986
Newfoundland	50.7	55.9	59.3
Prince Edward Island	11.0	11.0	10.8
Nova Scotia	57.7	58.5	60.3
New Brunswick	58.1	55.9	57.7
Quebec	391.2	401.6	423.1
Ontario	487.6	450.7	443.7
Manitoba	74.4	76.4	80.8
Saskatchewan	72.7	71.4	83.7
Alberta	134.2	137.4	150.9
British Columbia	149.3	156.7	158.8
Yukon	1.6	1.4	1.6
Northwest Territories	4.7	5.0	4.8
Outside Canada	1.2	1.8	1.6
Canada	1,494.3	1,483.8	1,537.3

¹ Taxation years are represented.**6.5 War veterans' allowances and pensions, 1981-87**

Province	Recipients of allowances ¹						
	1981	1982	1983	1984	1985	1986	1987
Newfoundland	5,508	5,310	5,265	5,277	5,111	4,964	4,845
Prince Edward Island	1,459	1,442	1,417	1,471	1,489	1,387	1,303
Nova Scotia	8,914	8,816	8,678	8,433	8,161	7,504	7,100
New Brunswick	6,270	6,398	6,291	6,133	5,880	5,459	5,225
Quebec	11,570	11,266	11,193	11,464	11,042	10,258	10,292
Ontario	31,176	29,996	28,464	29,778	30,665	29,064	28,525
Manitoba	5,618	4,388	4,039	4,054	3,971	3,689	3,607
Saskatchewan	3,783	3,635	3,439	3,445	3,276	3,100	3,081
Alberta ²	5,921	5,280	4,780	4,943	4,980	4,831	4,854
British Columbia ³	13,391	13,090	12,205	12,253	12,263	11,917	11,822
Outside Canada	908	1,183	1,280	1,387	1,519	1,653	1,746
Canada	94,518	90,804	87,051	88,638	88,357	83,826	82,400

6.5 War veterans' allowances and pensions, 1981-87 (concluded)

Province	Benefit expenditures (\$'000,000)						
	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87
Newfoundland	18.9	21.3	23.6	25.0	26.1	24.5	23.0
Prince Edward Island	5.7	6.7	7.5	8.2	8.6	7.9	6.9
Nova Scotia	31.7	37.4	41.6	43.7	45.1	41.5	36.5
New Brunswick	24.7	29.2	32.6	33.8	34.4	31.4	27.7
Quebec	39.8	46.4	52.7	57.8	61.9	58.6	55.5
Ontario	92.1	109.9	122.6	135.4	156.0	155.7	144.9
Manitoba	13.0	15.3	16.8	18.1	21.3	18.7	17.5
Saskatchewan	12.1	14.4	15.6	16.6	16.0	16.0	14.8
Alberta ²	17.0	18.9	20.8	22.5	25.7	25.9	24.9
British Columbia ³	36.9	41.8	47.3	52.1	58.8	61.0	59.4
Outside Canada	4.7	5.9	7.3	8.5	11.0	12.8	14.4
Canada	296.6	347.1	388.3	421.7	464.9	453.9	425.4
	Payments, veteran disability and dependent pensioners (\$'000,000)						
	1981	1982	1983	1984	1985	1986	1987
Newfoundland	7.4	8.3	7.7	8.5	8.8	9.7	9.9
Prince Edward Island	6.7	7.5	8.0	8.7	9.1	10.1	10.8
Nova Scotia	36.0	39.5	42.9	46.0	48.6	55.3	58.5
New Brunswick	22.0	24.2	26.1	28.5	29.8	33.3	34.9
Quebec	55.2	61.0	69.3	74.4	77.2	87.4	92.4
Ontario	174.3	189.8	239.2	258.4	267.6	291.5	263.4
Manitoba	39.4	42.9	40.0	42.9	44.2	47.1	49.4
Saskatchewan	20.7	22.6	23.9	25.9	26.8	28.9	31.0
Alberta	36.0	39.5	42.5	45.5	46.8	50.5	52.3
British Columbia	86.9	94.2	100.2	108.0	112.1	123.2	128.4
Canada ⁴	515.1	561.0	599.8	646.8	671.0	737.0	768.2

¹ As of Mar. 31.² Includes data for Northwest Territories.³ Includes data for Yukon.⁴ Includes persons who reside in the territories and outside Canada.**6.6 Canada Pension Plan and Quebec Pension Plan beneficiaries and net benefit expenditures, 1977-87¹**

Year	Annual average number of beneficiaries				
	Retirement pensions	Disability pensions	Survivors' pensions ²	Children's benefits ³	Total
1977	667,867	71,051	186,706	166,565	1,092,189
1978	755,713	81,806	214,648	177,711	1,229,878
1979	840,972	89,810	241,741	182,458	1,354,981
1980	939,184	98,081	283,747	182,843	1,503,855
1981	1,042,907	106,559	335,861	185,838	1,671,165
1982	1,124,143	116,089	373,738	187,374	1,801,344
1983	1,202,677	128,535	412,183	189,888	1,933,283
1984	1,284,439	143,623	452,832	194,672	2,075,566
1985	1,401,054 ⁴	159,306	496,753	193,268	2,250,381 ⁴
1986	1,518,571	175,271	536,611	190,250	2,420,703
1987	1,651,384	187,945	583,189	188,250	2,610,768

6.6 Canada Pension Plan and Quebec Pension Plan beneficiaries and net benefit expenditures, 1977-87¹ (concluded)

Year	Net benefit expenditures ⁴ (\$'000,000)				
	Retirement pensions	Disability pensions	Survivors ¹ pensions ²	Children's benefits ³	Total
1977	606.5	149.9	276.8	87.0	1,120.2
1978	816.3	184.0	335.6	97.9	1,433.8
1979	1,054.9	228.6	408.3	109.1	1,800.9
1980	1,337.3	269.4	488.9	118.1	2,213.7
1981	1,668.3	328.6	590.1	128.7	2,715.7
1982	2,070.5	392.4	709.1	140.0	3,312.0
1983	2,564.6	498.2	866.2	159.4	4,088.4
1984	3,104.7	617.4	1,036.7	179.3	4,938.1
1985	3,691.2	751.8	1,218.4	190.9	5,852.3
1986	4,325.9	879.1	1,378.6	203.3	6,786.9
1987	5,054.0	1,044.1	1,546.1	207.6	7,851.8

¹ Fiscal years ending Mar. 31.

² "Survivors" includes one-time death benefits.

³ "Children's benefits" includes benefits to children of disabled contributors, and orphans.

⁴ Payments outside Canada are included as of 1979-80.

6.7 Canada Assistance Plan (CAP), general assistance beneficiaries and federal-provincial benefit expenditures, 1982-87¹

Province or territory	General assistance beneficiaries ² (including dependents)					
	1982	1983	1984	1985	1986	1987
Newfoundland	54,700	51,900	53,300	49,100	47,000	50,500
Prince Edward Island	11,300	11,300	9,800	9,600	9,200	9,300
Nova Scotia	64,600	69,000	67,500	73,600	72,100	73,000
New Brunswick	62,700	70,100	68,600	69,100	68,800	73,700
Quebec	561,900	675,800	705,900	708,700	693,900	649,600
Ontario	406,800	471,200	484,600	485,800	485,800	518,400
Manitoba	47,800	55,900	59,200	62,800	62,600	60,600
Saskatchewan	48,400	59,700	63,700	64,000	62,700	62,100
Alberta	91,700	130,600	117,100	124,100	126,600	150,500
British Columbia	144,900	228,800	257,100	267,600	255,700	247,700
Yukon	1,500	1,300	1,100	1,500	1,400	1,200
Northwest Territories	6,500	7,300	7,000	7,400	7,100	8,300
Canada	1,502,800	1,832,900	1,894,900	1,923,300	1,892,900	1,904,900
	General assistance expenditures (total federal-provincial) ³ (\$'000,000)					
	1982	1983	1984	1985	1986	1987
Newfoundland	70.8	79.1	88.6	86.1	85.2	108.0
Prince Edward Island	19.6	22.6	19.2	21.3	22.4	23.2
Nova Scotia	98.0	120.1	126.3	139.5	143.3	165.2
New Brunswick	142.2	170.4	174.6	192.9	206.7	229.3
Quebec	1,220.4	1,472.3	1,851.8	2,055.3	2,221.9	2,146.7
Ontario	845.8	1,047.1	1,200.8	1,406.4	1,479.5	1,642.8
Manitoba	74.2	95.3	119.5	149.9	156.8	179.8
Saskatchewan	96.8	132.3	164.3	173.0	190.7	215.5
Alberta	261.4	367.4	401.5	419.6	481.7	543.4
British Columbia	433.2	635.9	769.7	866.5	879.0	859.7
Yukon	2.2	2.9	1.8	2.0	2.2	—
Northwest Territories	7.9	9.3	9.5	9.3	11.0	12.0
Canada	3,272.4	4,154.8	4,927.5	5,521.7	5,880.4	6,125.7

¹ Fiscal years ending Mar. 31.

² Beneficiaries are as of Mar. 31 of each fiscal year.

³ Total federal-provincial expenditures are estimates. They have been calculated by doubling the federal amount paid for claims received each year.

6.8 Social security expenditures, by program, 1983-87¹ (million dollars)

Program	1983	1984	1985	1986	1987
Federal social security					
Canada Assistance Plan					
General assistance ²	4,154.8	4,927.5	5,521.7	5,880.4	6,125.7
Homes for special care ²	760.2	780.8	798.2	788.5	634.6
Child welfare ²	357.6	314.4	306.1	246.0	209.2
Work activity and other welfare ²	1,031.5	1,101.0	1,194.8	1,345.1	1,570.0
Child Tax Credit ³	1,446.8	1,494.3	1,483.8	1,537.3	..
Canada and Quebec Pension plans					
Retirement	2,564.6	3,104.7	3,691.2	4,325.9	5,054.0
Survivors	866.2	1,036.7	1,218.4	1,378.6	1,546.1
Disability	498.2	617.4	751.8	879.1	1,044.1
Children's	159.4	179.3	190.9	203.3	207.7
Family Allowances	2,230.6	2,326.6	2,417.8	2,500.6	2,534.4
National training program ⁴	219.3	247.0	274.1	165.8	—
Canadian Jobs Strategy	—	—	—	643.6	1,492.8
OAS/GIS/SPA					
Old Age Security	7,005.3	7,649.0	8,215.9	8,857.7	9,520.0
Guaranteed Income Supplement	2,416.3	2,524.5	2,953.0	3,319.4	3,451.4
Spouses' Allowances	221.5	232.9	248.8	347.8	473.2
Registered Indians					
Social assistance	196.2	216.1	235.4	255.2	278.1
Social services	50.5	59.3	68.1	82.3	93.1
Unemployment insurance					
Unemployment	8,677.1	8,842.1	8,972.3	8,887.3	9,317.8
Sickness	175.2	184.6	209.0	223.5	250.3
Maternity	323.4	353.7	408.7	443.1	484.7
Retirement	18.1	18.6	20.5	21.8	22.2
Fishing	124.3	151.8	170.4	188.0	216.9
Training	211.8	230.6	227.4	234.8	233.5
Work sharing	121.1	55.5	32.2	19.5	23.7
Job creation	56.7	93.8	130.7	108.6	90.7
Veterans' benefits					
War veterans' allowances	388.3	421.7	464.9	453.9	425.4
Disability and dependents	621.1	657.8	672.0	696.9	729.0
Vocational rehabilitation of disabled persons ²	110.8	134.8	199.6	148.0	175.7
Provincial social security					
Workers' compensation					
Permanent disability ³	590.6	737.6	871.2	907.0	1,012.0
Temporary disability ³	1,029.7	1,100.5	1,207.0	1,331.1	1,538.8
Medical aid ³	346.3	416.2	445.9	476.7	558.8
Tax credits and rebates ⁵	1,618.9	1,616.4	1,704.9	1,764.5	1,826.3
Other welfare programs ⁵	1,811.2	2,064.3	1,868.6	2,021.8	2,187.6
Municipal social security ^{5,6}	471.1	524.2	580.8	637.7	700.2
Total	40,874.7	44,415.7	47,756.1	51,320.8	54,028.0

¹ Fiscal years ending Mar. 31, except as noted.² Total federal-provincial expenditures.³ Calendar year data. 1987 data are preliminary.⁴ The national training program was phased out in 1986.⁵ Estimates for 1986 and 1987.⁶ Excluding CAP cost-sharable expenditures.**Sources**

6.1 - 6.4, 6.6 - 6.8 Policy, Communications and Information Branch, Department of National Health and Welfare.

6.5 Directorate of Communication Services (Charlottetown), Department of Veterans Affairs.

CHAPTER 7

**HOUSING AND
CONSTRUCTION**

CHAPTER 7

HOUSING AND CONSTRUCTION

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RESIDENTIAL HOUSING PRICES, 1988

For selected urban areas

In 1988, the highest residential housing prices were found in the Toronto city district where the average resale price of a home was \$230,000. Ontario and British Columbia had the highest average sale prices, while the lowest average sale prices were found in the Yukon, followed by Prince Edward Island and Saskatchewan.

The number of purchases of resale homes increased 14% over those recorded in 1987. The 319,215 residential units sold in 1988 through the Multiple Listing Service (MLS) were worth a record \$41.9 billion. Resale house prices showed the greatest increases between 1987 and 1988 in Ontario, British Columbia, Prince Edward Island and Quebec.

1988 data mapped by MLS city district

Map produced by the Geocartographics Division, Statistics Canada.

HOUSING AND CONSTRUCTION

7.1 Housing supply and costs

7.1.1 House-building activity

Dwelling starts in Canada totalled 245,986 units in 1987, a 23% increase over the 199,785 units started in 1986. This was the highest level of house building activity since 1976 and represented the third consecutive year of growth in the housing industry.

Building activity was high throughout 1987, although the spring and summer months were exceptionally strong.

Single-detached starts totalled 140,139 units in 1987. This 17% increase over 1986 activity was the greatest increase in annual single-detached starts ever reported. The strength of the single-detached market was attributed to lower mortgage interest rates, which varied from 9.25% to 11.75%, and the resulting increased affordability. In addition, the strong performance of most provincial economies and subsequent improvements in employment and consumer confidence boosted investment in housing.

Construction of multiple units increased 33% with units totalling 105,847 in 1987, compared with 79,777 units in 1986. The strength of this market was attributed to low rental vacancy rates as well as a high demand for condominium units in some large urban centres in Quebec, Ontario and British Columbia.

As a result of the large number of starts in 1987, completions at the national level increased 18% to 217,976 units from the 184,605 units completed the previous year. This was the highest number of completions reported since 1979.

House building activity varied significantly at the provincial level increasing in Quebec, Ontario, Manitoba, Alberta and British Columbia and decreasing in all Atlantic provinces and Saskatchewan. The decreases in activity were attributed to weaker provincial economies, limited employment opportunities, out-migration and subsequent limited demand for new housing.

7.1.2 Construction, land and housing costs

The new housing price index rose substantially in 1987. The average price increase on a new home between 1986 and 1987 was 14.1%. This rate of increase was well in excess of the overall Consumer Price Index (CPI) which advanced only 4.3% over the same period. Nevertheless, the average price of a new home in 1987 was only 19.1% higher than in 1981. The CPI, in comparison, rose 38.2% during the same period.

The rate of increase in construction costs remained well below that of new housing prices. Residential building material costs, labour wages, and land costs advanced 4.0, 3.2 and 9.9%, respectively, in 1987. This differential between input costs and selling prices suggested that builders' profit margins were strengthened. This was particularly evident in southern Ontario markets and in Montreal.

Price behaviour at the metropolitan level varied considerably. The largest increases were recorded in Toronto and Hamilton, which advanced 26.1% and 16.8%, respectively. The softest market remained British Columbia. Prices in Vancouver rose only 4.5%, while Victoria recorded a drop of 2.3%. Prices in these two markets, as well as Edmonton and Calgary, still remained below their 1981 levels.

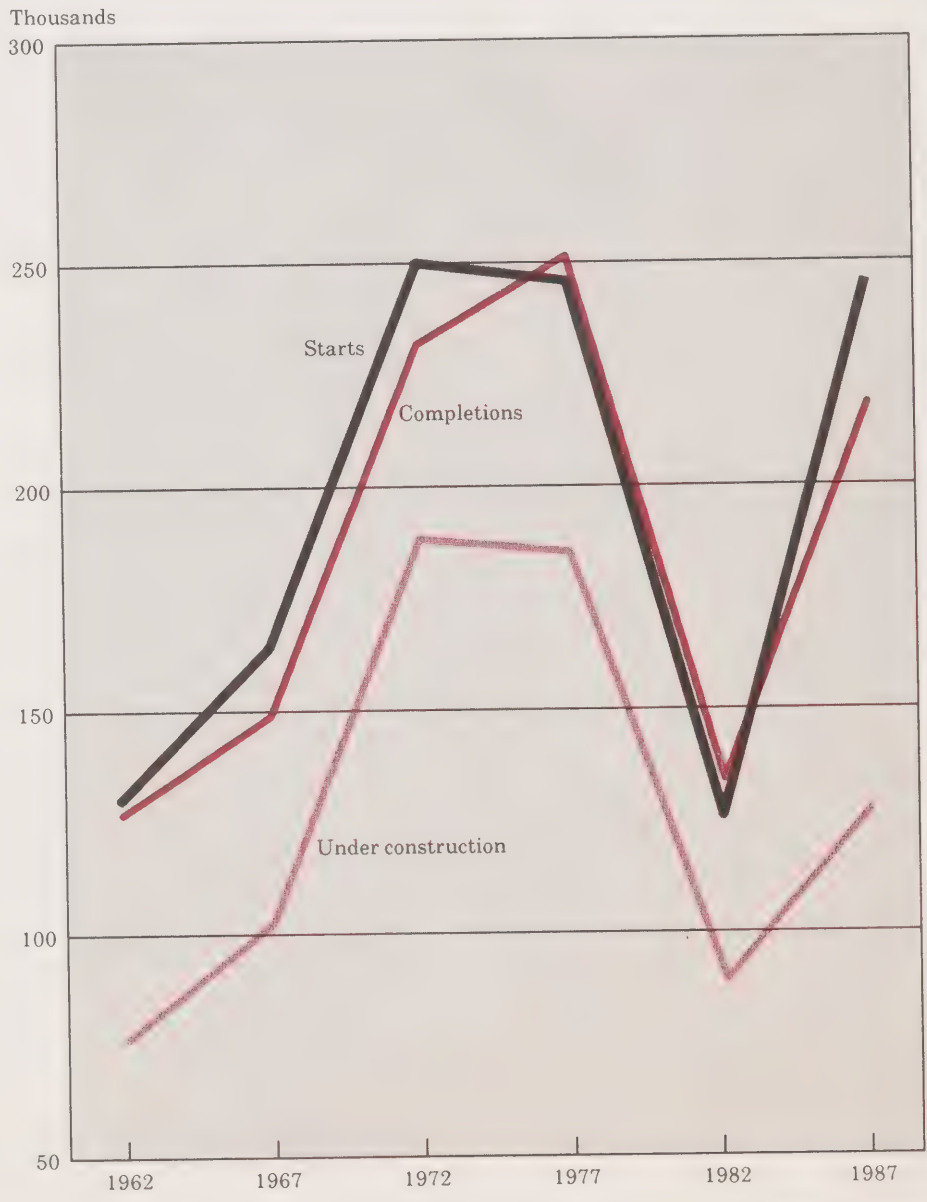
In 1987, the increase in shelter cost was higher for owned accommodation than rented accommodation. This reversed the trend which began in 1982. According to the CPI, the respective rates of increase were 6.2% for owners and 3.6% for renters. For homeowners, replacement costs and homeowners' insurance premiums had the most notable increases of 15.0% each. Conversely, utilities' costs rose only 0.5%.

7.2 Housing markets

7.2.1 Provincial trends

Housing starts at the provincial level, in 1987, declined in Newfoundland, Prince Edward Island and Nova Scotia, following a peak in 1986. Ontario, Alberta and Quebec experienced

Chart 7.1
Dwelling starts, completions and under construction



substantial increases, 29%, 28% and 23%, respectively. A 40% increase in British Columbia was the strongest increase in housing starts among the provinces.

The Newfoundland economy enjoyed moderate economic growth in 1987 with an increase in Gross Domestic Product (GDP) of 2.8%. In addition, the housing cycle peaked in 1986, after three consecutive years of growth. In 1987, housing starts declined 7% to 2,682 from the 2,883 units reported in 1986. Single-detached starts, which accounted for 94% of all starts, declined a slight 4% to total 2,530 units. A major factor contributing to the weaker total starts was a significant decline in multiple unit construction in the St. John's CMA (Census Metropolitan Area) where high vacancy rates reflected a soft rental market. A 10-year high in vacancies of 10.1% was recorded in apartment structures of six units and over. Factors identified as contributing to this were the high net outflow of migrants from the province as a result of weakness in the oil industry and the continued higher demand for home-ownership rather than rental units.

Prince Edward Island maintained steady economic output in 1987 with growth in real GDP at 2.3%. Following three years of expansion, housing starts peaked in 1986 and declined 16% in 1987 to total 1,110 units. Although single-detached starts declined 11% to total 699 units, the 40% decline in apartment starts contributed significantly to lower total activity. The lower activity was also a result of the weak Charlottetown rental market which was characterized by high vacancy rates in 1987.

The economy of the province of Nova Scotia also performed well in 1987, with real GDP growth at 2.8%. Following three years of exceptional growth and peaking at an all-time high in 1986, housing starts declined 15% in 1987 and totalled 6,460 units. The decline in housing activity was due mainly to lower demand. Single-detached starts were lower by 9.5% to total 4,120 units, while multiple starts declined 23% to 2,340 units. Most of the lower multiple unit activity occurred in the Halifax area where an overproduction of rental and condominium units occurred in 1986. Rental vacancy rates also increased in many communities in 1987.

In New Brunswick, housing starts declined for the third consecutive year to total 3,716 units, which was 8% below 1986 activity. The provincial economy performed well in 1987; the decline in housing starts was a result of an overproduction in previous years. Lower activity was reported for both single-detached and multiple units.

Rental markets continued to adjust from oversupplies which occurred in 1985 when the rent control program was terminated.

During the five-year period, 1983-87, Quebec's housing industry experienced its largest expansion period. The strong performance of the provincial economy with real GDP growth estimated at 5.0% and employment growth at 3.5% coincided with the peak in housing starts. The highest level of activity ever was recorded in 1987 when starts increased 23% on a year-over-year basis to 74,179 units. The strength of construction was partly in single-detached units which increased 33% to 31,430 units. In the multiple unit sector, condominium units increased 36% to 8,220 units from the 6,050 units in 1986 contributing significantly to the upswing. Although there was substantial variation across the province, most urban centres recorded increases in vacancy rates by October. This was a result of an 18% increase in rental construction starts and the subsequent high number of units completed in the latter part of the year, despite the lower demand.

Housing starts in Ontario totalled 105,213 units in 1987 which was a 29% increase over 1986 activity; the second highest figure on record and the highest since 1973. The housing market was supported by strong economic and employment growth, as well as high net interprovincial migration. Most of the growth occurred in multiple-unit construction. While multiple starts increased by 61% to total 40,284 units, single starts increased 15% to 64,929 units. The increase in multiple activity came primarily from condominium units, particularly in the Toronto CMA where condominium starts rose 112%. A strong net flow of migrants seeking employment opportunities resulted in row and apartment vacancy rates in the province reaching record lows. This was particularly evident in the Kitchener-Oshawa corridor.

In Manitoba, 1987 marked the third consecutive year of growth for the housing industry. Housing starts totalled 8,174 units, a nine-year high and a 6% increase over 1986 levels. Almost 80% of the starts occurred in the Winnipeg CMA. The increase in starts came exclusively from multiple units, which increased 22% and accounted for 43% of the market. The good supply of available rental units, as a result of the higher level of multiple-unit construction, was also reflected in higher vacancy rates reported for many communities. Economic growth in Manitoba was mostly spurred by strong non-residential capital spending in work associated with the Limestone Hydro Project.

In 1987, Saskatchewan housing starts declined 11% to 4,895 from the previous year. This was the lowest level of housing activity reported since 1972. Limited economic growth, as a result of low demand and prices for agricultural, oil and potash products, resulted in minimal employment growth and provincial out-migration. The weak performance of the economy combined with the expiry of the \$3,000 first-time home buyer grant at the end of 1986 contributed to the 21% decline in single-detached starts. The 9% increase in multiple start activity was the result of a surge in the construction of condominium units. In 1987, 557 condominium units were constructed compared with 181 in 1986.

During the past few years, Alberta has been recovering from an economic recession which occurred in 1983 as a result of a severe decline in oil prices. In 1987, housing starts increased 28% to 10,790 units from the 8,462 units reported in 1986. Approximately 88% or 9,495 units were single-detached, a 33% increase over 1986 activity. The decline in house prices which occurred with the recession combined with lower mortgage interest rates, increased the affordability of ownership units in 1987. The strength of demand for single-detached units has prolonged the recovery of the weak rental markets. Surplus rental units in many urban markets maintained low multiple-unit construction activity which totalled 1,295 units in 1987, a 2% decline from the 1,316 units constructed the previous year. There were, however, signs of improvement in some rental markets which reported improvement in vacancy rates and rent levels at the end of 1987.

In British Columbia, housing starts increased 40% to 28,944 units in 1987 from 20,687 units in 1986. This was the strongest increase in housing starts among the provinces. A large increase in activity occurred in the construction of condominium units which included almost two-thirds of the 11,729 row and apartment starts. The increase in rental units was stimulated by the low vacancy rates experienced in many southern urban centres. In 1987, British Columbia reported the highest economic growth and benefitted from strong employment creation in the forest industry and in-migration which subsequently stimulated the demand for housing.

7.2.2 Mortgage lending

The volume of mortgage approvals extended by major financial institutions increased by 22% in 1987 to a level of \$43.3 billion. The strong growth in financing reflected the underlying buoyancy in the housing market. A total of 713,852 new

and existing units were financed, which was almost the same number as in 1986. Existing units comprised 83.9% of the total, down slightly from the previous year's figure of 86.1%. New units were 16.1% and 13.9%, respectively, in 1987 and 1986.

Among the major financial institutions, the chartered banks accounted for the largest portion of lending. Their market share of total approvals was 54.0% in 1987, an increase from 51.5% in the previous year. Life insurance companies lost market share in 1987. They held 6.2% of the market, down from 7.6% in 1986. However, the companies continued to dominate financing of the non-residential construction.

Market share held by trust and loan companies combined fell marginally in the year to 37.4% from 37.9% in 1986. Their share of the market has fallen significantly since 1985 when it was 41.8%.

The steady decline observed in recent years in the proportion of National Housing Act (NHA) loans to total approvals appeared to slow in 1987. NHA loans comprised 20.3% of total approvals, a marginal decrease from 20.5% in 1986. However, in 1984, NHA loans comprised 39% of the total.

Major developments in the mortgage market occurred primarily in the secondary market. Issues of NHA Mortgage-Backed Securities reached \$456.1 million in 1987 which was the first full year of operations. Of that total, approximately 90% were 5-year terms, with the remainder 10-year terms. Approximately 80% of total issues were purchased by retail investors. NHA Mortgage-Backed Securities competed with similar investments issued by private companies.

7.3 Canada Mortgage and Housing Corporation

Canada Mortgage and Housing Corporation (CMHC) is the federal government's housing agency, charged with the administration of the National Housing Act (NHA). It is a Crown corporation with a board of directors reporting to a minister responsible to Parliament.

Under the terms of the NHA, the Corporation is authorized, on the government's behalf, to establish a system of mortgage loan insurance; to acquire lands for public purposes; and to assist Canadians, mainly by the provision of loans and contributions, in gaining access to suitable accommodation, whether as homeowners, tenants or members of co-operative organizations; and in improving existing dwellings and the quality of their community environment. It also has a general

mandate to improve the quality of housing and community planning through research, development and the dissemination of information, and to act as a policy advisor to the government.

In 1987, the Corporation administered a \$9.5 billion portfolio of loans and investments, as well as 3,775 dwelling units owned by CMHC and 11,262 dwelling units owned by the CMHC mortgage insurance fund.

CMHC is responsible for grants, contributions and subsidies. These amounted to \$1.5 billion in 1987, down from a high of almost \$1.8 billion in 1983. The bulk of these payments are directed to social housing assistance.

7.3.1 Housing policy and programs

In 1985, CMHC housing programs came under close scrutiny during the government's extensive consultations with representatives of provincial, territorial and local governments, participants in the housing sector and other interested parties.

In the area of social housing, a new housing policy and revamped housing programs were introduced in 1986 which targeted all financial support to Canadians in greatest need. Currently a major review of renovation policy is under way to determine the best role for government in the renovation marketplace and to improve the renovation programs that are part of the social housing package. A new policy is also being developed for preserving the existing social housing stock.

A consultative review undertaken in 1986 reaffirmed equal access to National Housing Act mortgage insurance as the primary public policy objective and cross-subsidization as the enabling means. The consumer-oriented new initiatives under the new directions are for second mortgages and moveable home loans, and portfolio insurance for the packaging of existing mortgages into NHA Mortgage-Backed Securities. In other areas of market housing, the priority policy themes are: building upon the initial success of NHA Mortgage-Backed Securities; and encouraging private renovations.

In the upcoming years, attention will be focused on a number of policy areas. One area involves assisting the Corporation and the government to prepare for future challenges in housing. This will include an examination of policy opportunities in promoting the emergence in the marketplace of a wider range of housing choices for older Canadians. In another area, a program evaluation is under way and a major policy development will take place for rural and native housing.

Consultation is expected in the near future with interested parties on housing quality and the government's role in this field.

7.3.2 Market housing support

Loan insurance. The mortgage insurance fund is created from premiums paid for NHA insurance. Essentially, in return for a premium, CMHC agrees to reimburse the lender against losses incurred as a result of borrower default. The premium can be amortized over the duration of the loan. Insurance in force stood at \$41.7 billion in 1987.

Mortgage-Backed Securities. The NHA Mortgage-Backed Securities (MBS) program is one of the most important initiatives in Canadian housing finance since the introduction of public mortgage insurance. Launched in December 1986, the program is designed to increase the availability of funds for residential mortgages, help stabilize mortgage interest rates and facilitate the return of longer-term mortgages. These objectives are met through the provision of a timely payment guarantee on NHA MBS investment certificates. During the program's first year of operations, the investment community responded enthusiastically by underwriting 51 issues in the amount of \$458.1 million. The program has been further enhanced by enabling the pooling of social housing loans, and the feasibility of developing new products will continue to be examined.

Index-linked mortgages. A new co-operative housing program was also implemented in 1986. This program is intended to provide an alternative to households which are unable to afford homeownership. The program uses an innovative financing technique called the index-linked mortgage and will operate as an experimental program for a five-year period.

Eligible co-operatives may finance up to 100% of eligible capital costs through an index-linked mortgage insured by CMHC. A portion of the units, up to 50% with provincial concurrence, with a minimum of 15% in each project, must be made available to households which would otherwise have to pay 30% or more of their household income on the private market, and to those with special housing needs. Their rent is determined by a rent-to-income scale.

7.3.3 Social housing support

New arrangements for the delivery and financing of social housing programs were successfully negotiated with all provinces except Prince Edward Island and the two territories, in 1986. Under these arrangements, 19,598 subsidized housing units were committed and 33,011 units received

assistance for renovation and rehabilitation, including assistance to the disabled, in 1987.

Non-profit housing program. This program provides for subsidized rental housing projects which are owned and operated by private or public non-profit corporations or co-operatives. Rents are calculated according to a rent-to-income scale and are adjusted to household incomes. The annual subsidy for projects offering permanent accommodation, for occupants who are income tested, is equal to the difference between the eligible annual operating costs and revenues of the project. For some projects with special services or facilities offering temporary, transitional shelter, annual assistance is the difference between the amount required to amortize eligible costs over 35 years at agreed market rates and the amount required to amortize such costs if the interest rate charged were 2% per annum. Federal housing support of the latter form of housing will be phased out by 1994.

Urban Native Housing Program. Assistance to low-income people of native ancestry, living in urban areas, is provided through this program. The assistance is for non-profit, rental or co-operatively owned housing and is scaled so that tenants pay no more than 25% of their adjusted income for rent. The annual subsidy is determined on the same basis as the non-profit program.

Rent supplement program. This program provides for the leasing of units from private landlords and co-operatives to households who must pay 30% or more of their gross income for housing on the private market, by providing assistance to reduce their rent to a specific portion of their income. This assistance is based on an agreed market rent charged according to a rent-to-income scale.

Residential Rehabilitation Assistance Program (RRAP). Loans are available to assist in the repair and rehabilitation of residential dwellings on a universal basis, including loans to Indians on reserves. The nature and quality of the work is expected to ensure a further useful life of the property for 15 years.

Homeowner RRAP provides loan assistance up to \$10,000 in urban areas and \$25,000 in rural areas to households in core need. A portion of the loan may be forgiven, depending on household income and an assurance of continued occupancy for five years.

Rental RRAP provides a maximum forgivable loan of \$17,000, the exact amount of which depends on the actual cost of repairs and the relationship of the post-RRAP rents to the average market rents. The landlord must enter into a

rental agreement which controls rents for a period of time.

RRAP for the disabled provides a forgivable loan to make existing homeowner or rental housing more accessible for disabled persons.

Rural and native housing. This program provides housing on a home-ownership, rental or lease-purchase basis to rural and native people in need, living in communities of up to 2,500 in population.

Ownership clients receive subsidies based on their adjusted household income and the amount required to amortize the mortgage plus taxes and eligible heating costs. Rental clients pay rents which are calculated according to a rent-to-income scale and to adjusted household income.

Rural and Native Demonstration Program. Through this five-year demonstration program, CMHC is evaluating a new build-it-yourself approach to providing rural and native housing. CMHC provides building materials and on-site supervision while selected families are required to build their own homes through volunteer labour. The value of assistance provided is forgiven over 5 to 25 years, depending on the location of the house and an assurance of continued occupancy by the client.

Emergency repair program. Under this program, contributions are provided to eligible clients in rural areas for emergency repairs required to eliminate health and safety threats to the occupants of sub-standard existing housing.

Housing for Indians on reserves. Indian and Northern Affairs Canada (INAC) is the federal agency responsible for housing on Indian reserves. CMHC makes the Non-Profit Program available to Band Councils, as part of the INAC On-Reserve Housing Program, with the assistance available being equivalent to writing down the mortgage interest rate to 2%.

7.3.4 Research, development and information

CMHC undertakes research and development activities on the social, economic and technical aspects of housing and community planning and development. These activities are carried out to increase public understanding of important housing issues and questions, and to offer new knowledge which may be used to improve housing conditions and quality.

In addition, CMHC advises the federal government in matters related to housing policy, undertakes housing program evaluations and produces data and statistics on housing and building activity in Canada.

CMHC consults with and uses the services of individuals, educational institutions, and industrial and professional firms and organizations, as well as other government agencies, to supplement the work of its staff on directed research and development activities.

Support for independent research initiatives, innovative housing product development and graduate scholarships is provided through the External Research Program, the Housing Technology Incentives Program and the CMHC Scholarships Program. Through the Canadian housing information centre, the national housing research committee and public information programs, the Corporation maintains and disseminates research results and information on housing to the public, including those with special interests in the field. This is done in order to promote general awareness of current housing issues and developments.

7.3.5 Management and agreements

CMHC is involved in the ongoing management and administration of the Corporation's operating agreements with provinces/territories, municipalities, non-profit and co-operative groups, private landlords and individuals. The operating agreements regulate budgets, rental policies, leasing, provision of subsidy assistance, project management, reporting and sale. The function is to ensure that federal objectives contained or as manifest in the operating agreements are met. This includes: ensuring that subsidies/benefits available under the programs are provided to those Canadians who meet the income requirements for the agreements; ensuring that subsidies/benefits are advanced only on the basis of eligible items and costs in accordance with the agreements; and ensuring that the physical condition of the management portfolio is maintained at an adequate and acceptable level.

Operating agreements are in place for over 550,000 housing units. During 1987, the Corporation advanced over \$1.5 billion in subsidy assistance and benefits.

7.4 Census and survey data on housing

During the 1981-86 period, Canada's population increased by 4.2%; the number of occupied private dwellings grew by 9.4% or 776,000 units — more than twice the percentage growth in the population.

The number of occupied private dwellings totalled just over 9 million, up from 8.3 million in 1981. The growth in occupied private dwellings

for the 1981-86 period, however, was much lower than the average of 16% recorded in the four previous Censuses. This decline in the growth rate is due in part to the slowdown in population growth and also to the maturing of the baby-boom generation, many of whom established new households during the 1970s.

7.4.1 Cost of shelter

In 1986, households owning their home, but with a mortgage, spent an average of \$719 a month on shelter costs (mortgage payments, costs of essential utilities, heating costs and property taxes), while those without a mortgage spent an average of \$216. Average monthly shelter costs for households renting their home were \$431 (monthly cash rent plus essential utilities and heating costs if these were not included in the cash rent).

In 1986, monthly shelter costs for renter households and for owner households with a mortgage shared a similar regional pattern. They were highest in Alberta, British Columbia and Ontario.

For households owning their home free of mortgage, the pattern was slightly different. Their shelter costs were highest in the Northwest Territories, Ontario and Quebec while British Columbia's households had one of the lowest monthly costs for this group.

Number of rooms per dwelling. In 1986, on average, Canadian dwellings had 5.8 rooms. The average number of rooms per dwelling increased steadily from 1961 to 1986, rising from 5.3 in 1961 to 5.4 in 1971 and 5.7 in 1981. In contrast, previously published data from the 1986 Census show that the average size of Canadian households (number of persons per household) declined from 3.9 in 1961 to 2.8 in 1986.

In 1961, dwellings with seven or more rooms accounted for 22% of all dwellings while in 1986 they accounted for 35%. Between 1981 and 1986, there was an increase of over 500,000 dwellings with seven or more rooms, as the result of both new construction and the addition of rooms to existing dwellings. The number of dwellings with 10 or more rooms grew most rapidly over this period, rising 36%, while the number of dwellings with nine rooms increased by 29% and the number with eight by 19%.

7.4.2 Home-ownership, mortgage and value

In 1986, six of every 10 Canadian households owned their home and, of these, almost half (48%) owned their home free of mortgage. The share of households owning their home free of mortgage increased from the level (42%) recorded in the 1981 Census.

Almost three-quarters of households with more than one income recipient owned their home in 1986, in contrast to slightly less than half of households with only one income recipient.

Among households owning their home, the proportion with a mortgage was highest in Alberta (60%), the Yukon (56%), and Quebec (56%).

Newfoundland's households owning their own home were least likely to have a mortgage, with only one in every three households in this situation in 1986.

(All data on home-ownership and shelter costs are for non-farm, non-reserve households only.)

The condominium alternative. The condominium is an increasingly popular form of home-ownership. While Canada's 235,000 owner-occupied condominiums accounted for only 4.3% of owner-occupied dwellings in 1986, their number grew rapidly from 1981 to 1986, increasing by 37%.

This form of ownership was concentrated in highly urbanized provinces, notably Ontario (54% of all owner-occupied condominiums were in this province), British Columbia (20%) and Alberta (9%). Quebec, which accounted for over one-quarter of all occupied dwellings was a notable exception, with only one-eighth of owner-occupied condominiums.

Home values. According to the 1986 Census, taken in a period when Ontario's economy was growing strongly relative to other provincial economies, Ontario households owning their dwellings reported the highest average estimated value (\$104,063), up one-third from 1981. British Columbia's households reported the second-highest values on average (\$98,850), followed by households in Alberta (\$84,936).

Among the major urban centres, the residents of the Toronto metropolitan area reported the highest estimated value on average (\$142,282), followed by residents of Vancouver (\$127,311), Ottawa-Hull (\$116,802) and Victoria (\$103,466).

Five years previously, in the 1981 Census, residents of Ontario reported the third highest average value of dwelling, behind first-ranked British Columbia and second-ranked Alberta. Among the major urban centres, residents of the Vancouver Census Metropolitan Area (CMA) gave the highest value on average (\$171,726), followed by the Victoria CMA (\$132,529), the Calgary CMA (\$114,666), and the Toronto CMA (\$114,284).

7.4.3 Home-ownership trends

Following a slight decline in home-ownership over the 1961-76 period, the pattern of home-

ownership has not changed significantly throughout Canada since 1976. Overall, 62% of all private dwellings in Canada were owner-occupied. But ownership varied from about 28% in the Northwest Territories to about 80% in Newfoundland.

In 1986, 17% of all household maintainers under the age of 25 were homeowners. For the 25 to 34 year age group, the proportion increased very sharply to about 49%, and reached a peak of 76% for the group aged 45 to 54. Among the elderly, the proportion of homeowners was less than for the middle-aged groups, with 69% for the group aged 65 to 74 years, and 57% for the group 75 years and over. These figures reflect a change in lifestyle for some seniors who move to rental apartments or institutions to avoid home maintenance.

This pattern of home-ownership reflects the notion of the "life cycle" of most households. First, young householders tend to rent their dwellings, becoming homeowners later, and remaining so until much later in life when housing needs again change.

In summary, the period 1981 to 1986 has seen a continuation of previously established trends in households and families.

7.4.4 Home heating

Although international oil prices declined significantly during the 1980s from their record levels in the 1970s, the movement away from oil for home heating continued during the first half of the 1980s.

From 1981 to 1986, the number of dwellings using oil or kerosene as the principal fuel for home heating declined by more than 1,200,000, a drop of 43% over the five-year period. During the same period, the number of dwellings using piped gas for heating increased by over 600,000 or 20%, and the number using electricity by over one million, or a 50% increase.

A revolution in home heating. The 25 years from 1961 to 1986 saw a dramatic shift in fuels used for home heating. Coal and coke, still in common use in 1961, had nearly disappeared just 10 years later. Wood, which had appeared destined for the same fate during the 1960s, experienced a minor resurgence as a fuel for home heating in the 1970s and early-1980s.

Subsequent to the sharp increase in international oil prices in 1973, oil and kerosene, which had been the principal heating fuels used in almost six out of 10 dwellings in the 1960s and early 1970s, lost favour with consumers.

By the mid-1980s, less than two of every 10 dwellings still used oil and kerosene as the principal fuels for heating.

The principal replacement fuels for oil were piped gas and electricity. Piped gas, in use by less than 20% of dwellings in 1961, heated over 40% in 1986, while electricity, almost unknown for home heating in 1961, was used as the principal energy source for home heating by one in every three dwellings in 1986.

7.4.5 Period of construction.

Information from the 1986 Census recorded that six out of every 10 dwellings had been constructed in the 25 years preceding the 1986 Census. One-quarter occupied dwellings were constructed in the 10 years prior to the Census.

Among the provinces, Alberta had the largest proportion (39%) of dwellings that were built in the 10 years prior to the 1986 Census. Ontario had the lowest proportion of its dwellings built between 1976 and 1986, at just over two in every 10.

Prince Edward Island, with almost one-quarter of its dwellings constructed before 1921, had the highest proportion of very old dwellings in its housing stock, while Alberta, with 3% of older dwellings, had the lowest proportion.

7.5 Construction

7.5.1 Value of construction work

Data on construction activity represents the estimated total value of all new and repair construction put in place by contractors and by the labour forces of utility, manufacturing, mining and logging firms, government departments and homeowner builders, and by other persons or firms not primarily engaged in the construction industry.

All estimates given for cost of materials used are based on ratios of this item to total value of work performed, derived from annual surveys of construction work performed by contractors and others and applied to the total value-of-work figures. Estimates of labour content are similarly based but are also adjusted to include working owners and partners and their withdrawals.

7.5.2 Building permits issued

The estimated value of proposed construction is indicated by the value of building permits issued. Building permit data are collected by Statistics Canada from approximately 2,400 municipalities across the country and are available for individual municipalities, metropolitan areas, provinces, economic areas and Census divisions.

The total value of permits issued for building construction in 1987 was about \$31.0 billion, up from \$24.7 billion in 1986 and \$19.5 billion in 1985. Residential construction value was \$18.8 billion in 1987 compared to \$14.2 billion in 1986 and \$10.9 billion in 1985.

7.6 Capital expenditures

Total capital expenditures in Canada during 1988 were expected to reach \$122.9 billion, an increase of 13.3% over the \$108.5 billion in 1987, which was an 11.8% increase over the \$97.1 billion in 1986. These estimates were in current dollars without any adjustment for price increase and reflected the intended outlays by respondents in a Statistics Canada capital and repair expenditures survey. The survey covered about 28,000 business establishments, educational and other institutions, and governments at all levels.

The 1988 total for the acquisition of machinery and equipment was estimated at \$46.9 billion, 20.5% above the \$38.9 billion in 1987 which was 8.2% higher than the \$35.9 billion in 1986. Total construction was estimated to increase 9.2% in 1988 to \$76.1 billion, after a gain of 13.9% in the 1987 total of \$69.6 billion, compared with the \$61.1 billion in 1986. These estimates included \$33.3 billion, \$32.8 billion and \$25.8 billion for residential construction in 1988, 1987 and 1986, respectively. Non-residential construction was estimated to be \$42.8 billion in 1988, \$36.8 billion in 1987 and \$35.3 billion in 1986.

Capital expenditures in one region may have income-giving effects in others. For example, spending millions of dollars on plant and equipment in Western Canada may generate considerable activity in machinery industries in Ontario and Quebec as well as construction activity in the western provinces.

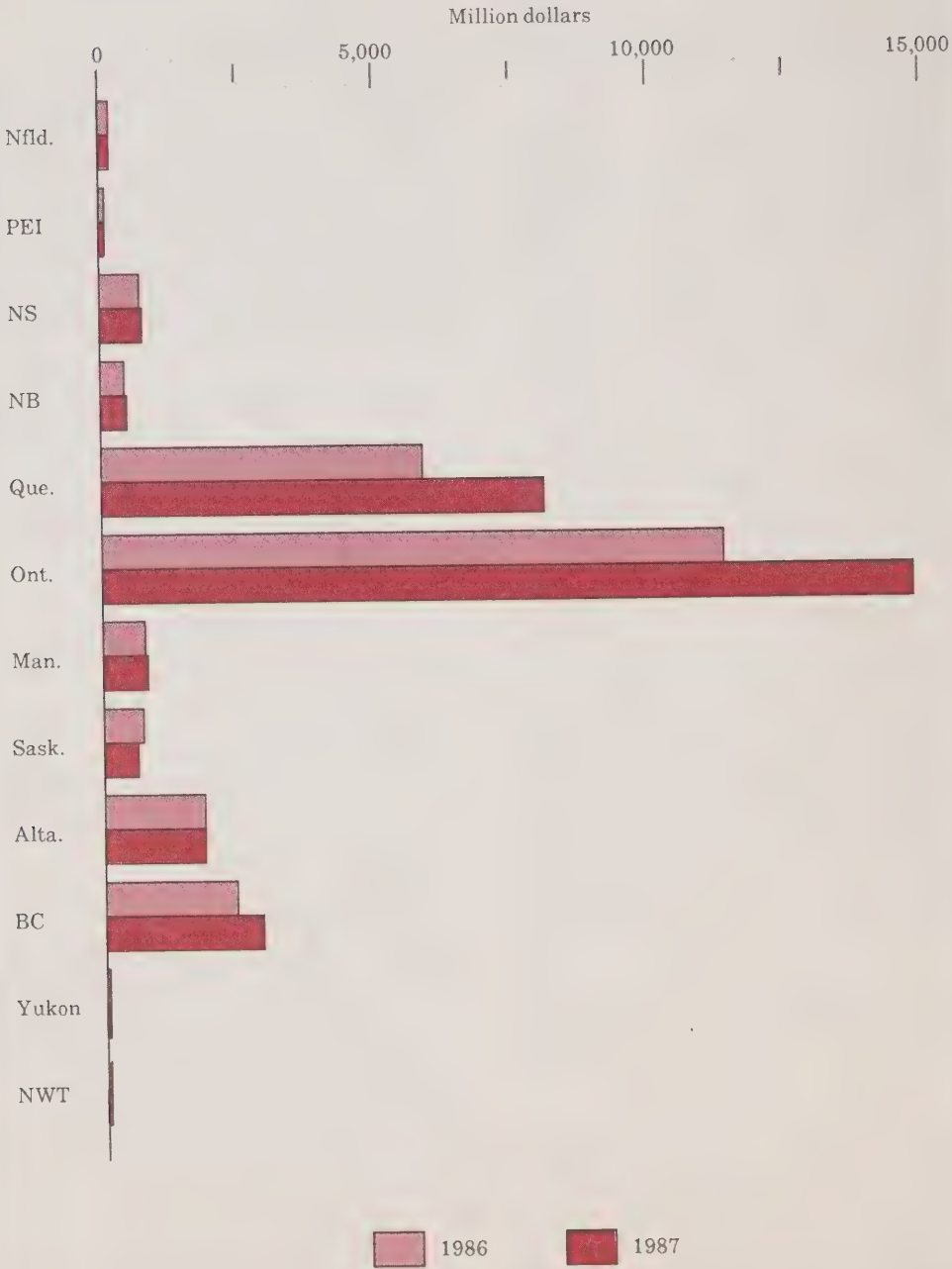
7.7 Price indexes

Statistics Canada compiles price indexes relating to outputs of industries specializing in construction work, selected categories of capital expenditure and other related indexes. These data are available in summary in a monthly publication, *Construction price statistics*, and in detail from the Canadian socio-economic information management system (CANSIM), a Statistics Canada computer data bank.

New housing price indexes measure changes in selling prices of new houses constructed by large- and medium-volume builders in metropolitan areas. Prices used are the selling prices agreed upon between builder and buyer at the time a

Chart 7.2

Value of building permits issued
(total residential and non-residential)



contract is signed. The total index includes the house and the serviced lot on which it stands (except for a few areas, principally in Quebec, where the servicing costs are paid, not to the builder as part of the purchase price, but to the local municipality in property taxes). They exclude legal fees, provincial land transfer taxes and similar costs to the buyer in acquiring the property. Price movements cover single unit houses, semi-detached and row condominiums (Table 7.4).

Construction union wage rates and indexes measure changes over time in the current collective agreement rates for 16 trades engaged in building construction in 22 metropolitan areas. Union wage rates, by trade, are also published for 22 metropolitan areas for both the basic rates and rates including selected supplementary payments. Indexes are provided for those cities where a majority of trades are covered by current collective agreements. The index includes the basic rate for hourly wages and supplements. The supplements include such elements as vacation pay, statutory holiday pay, pension contribution, employer contribution to private plans, health and welfare, industry promotion and training fund. Weights are based on estimates of gross earnings of each trade in each metropolitan area, derived from Census data (Table 7.12).

Output price indexes of non-residential construction measure the change in estimated contract amounts for the construction of selected non-residential buildings as shown for Halifax, Montreal, Ottawa, Toronto, Calgary, Edmonton and Vancouver in Table 7.12. Office buildings, warehouses and shopping centres were selected to be representative of commercial construction. Institutional and industrial construction is represented by schools and light industrial buildings, respectively. Included as measures of output

are prices for materials, labour, use of equipment, sales taxes, job overhead and profit. They reflect conditions of the local market and also the results of productivity in putting the work in place (Table 7.13).

Highway construction price indexes. These indexes relate to prices paid by provincial governments in contracts awarded for highway construction. The indexes measure the effect of price change on the cost of specified new highway construction projects represented by contracts of approximately \$50,000 or more awarded by provincial governments. Prices contained in the index are for units of construction work put in place by contractors. Also included are prices of materials usually supplied by the highways department such as culverts and asphalt.

Construction building materials price indexes are base-weighted indexes measuring price changes over time for a selection of principal commodities used in the building construction industry. They are divided into four classes of activity — structural, architectural, mechanical and electrical — for residential and non-residential fields. Prices are manufacturers' selling prices, adjusted for changes in federal sales taxes.

Machinery and equipment price indexes. Based on the input/output structure of industries and commodities, these indexes indicate variations in estimated purchase prices of machinery and equipment bought by Canadian industries of both domestically produced and imported goods. Also available on CANSIM are sub-indexes by origin and by selected commodity. Other types of capital expenditure price data available from Statistics Canada are measures applying to total capitalized cost for certain categories of investment for electric utilities, process industries, chemical and petrochemical industries and telecommunications.

Sources

- 7.1 – 7.3 Canada Mortgage and Housing Corporation.
- 7.4 Housing, Family and Social Statistics Division, Statistics Canada.
- 7.5 – 7.6 Science, Technology and Capital Stock Division, Statistics Canada.
- 7.7 Prices Division, Statistics Canada.

FOR FURTHER READING

Selected publications from Statistics Canada

- Housing Starts and Completions, monthly. 64-002
- Construction in Canada, annual. 64-201
- Building Permits, Annual Summary, annual. 64-203
- Highway, Road, Street and Bridge Contractors, annual. 64-206
- Non-residential General Contractors and Developers, annual. 64-207
- Canada's Young Family Home-owners, 1981 Census, 15 p., 1984. 99-939
- Mortgagor Households in Canada: Their Geographic and Household Characteristics, Affordability and Housing Problems, 1981 Census, 100 p., 1986. 99-945

More information about these publications is available from Statistics Canada. See Appendix F for a complete list of Statistics Canada offices.

TABLES

- .. not available

... not appropriate or not applicable

— nil or zero

-- too small to be expressed
- e estimate

p preliminary

r revised

certain tables may not add due to rounding

7.1 Dwelling starts by principal source of financing, 1977-87 (dwelling units)

Period	Public funds under federal legislation					Institutional funds					
	Under National Housing Act		Other			Under National Housing Act					Total
	Social housing ¹	Market housing ²	Loans ³	Direct government housing	Sub-total	Social housing ⁴	Market housing ⁵	Conventional loans	Sub-total	Other	
Single-detached											
1977	1,238	733	631	2,355	4,957	—	25,701	45,700	71,401	32,045	108,403
1978	1,579	283	515	2,047	4,424	—	17,315	52,400	69,715	35,890	110,029
1979	1,074	137	584	2,644	4,439	45	10,059	60,700	70,804	33,874	109,117
1980	946	181	478	2,636	4,241	50	6,460	39,750	46,260	37,220	87,721
1981	669	164	527	2,449	3,809	59	6,215	29,489	35,763	49,499	89,071
1982	558	139	272	2,036	3,005	212	5,031	17,015	22,258	29,194	54,457
1983	430	61	318	2,937	3,746	240	14,544	30,484	45,268	53,371	102,385
1984	701	30	90	2,284	3,105	381	12,173	22,571	35,125	45,421	83,651
1985	327	47	160	1,943	2,477	417	8,169	32,061	40,647	55,500	98,624
1986	453	31	238	1,943	2,665	337	6,742	36,170	43,249	74,094	120,008
1987 ^p	309	31	106	1,669	2,115	485	7,022	36,806	44,313	93,711	140,139
Other											
1977	14,378	1,470	—	—	15,848	—	76,761	26,000	102,761	18,712	137,321
1978	12,627	271	—	—	12,898	—	54,939	21,200	76,139	28,601	117,638
1979	8,757	55	—	—	8,812	2,333	26,243	22,300	50,876	28,244	87,932
1980	2,577	16	—	—	2,593	7,634	14,777	13,600	36,011	32,276	70,880
1981	1,315	—	—	—	1,315	8,643	11,472	11,235	31,350	56,237	88,902
1982	876	4	—	—	880	15,802	9,532	10,705	36,039	34,484	71,403
1983	486	—	—	—	486	12,053	15,374	8,694	36,121	23,653	60,260
1984	1,203	—	—	—	1,203	10,182	10,492	6,614	27,288	22,758	51,249
1985	363	2	—	—	365	14,072	7,878	9,918	31,868	34,969	67,202
1986	480	15	—	—	495	6,359	2,340	17,366	26,065	53,217	79,777
1987 ^p	200	—	—	—	200	8,869	3,718	15,911	28,498	77,149	105,847
Total											
1977	15,616	2,203	631	2,355	20,805	—	102,462	71,700	174,162	50,757	245,724
1978	14,206	554	515	2,047	17,322	—	72,254	73,600	145,854	64,491	227,667
1979	9,831	192	584	2,644	13,251	2,378	36,302	83,000	121,680	62,118	197,049
1980	3,523	197	478	2,636	6,834	7,684	21,237	53,350	82,271	69,496	158,601
1981	1,984	164	527	2,449	5,124	8,702	17,687	40,724	67,113	105,736	177,973
1982	1,434	143	272	2,036	3,885	16,014	14,563	27,720	58,297	63,678	125,860
1983	916	61	318	2,937	4,232	12,293	29,918	39,178	81,389	77,024	162,645
1984	1,904	30	90	2,284	4,308	10,563	22,665	29,185	62,413	68,179	134,900
1985	690	49	160	1,943	2,842	14,489	16,047	41,979	72,515	90,469	165,826
1986	933	46	238	1,943	3,160	6,696	9,082	53,536	69,314	127,311	199,785
1987 ^p	509	31	106	1,669	2,315	9,354	10,740	52,717	72,811	170,860	245,986

¹ Includes activities under the following Sections of the National Housing Act: Rural and Native Housing (Section 55), Federal-Provincial Rental and Sales Housing Projects (Section 40).

² Includes activities under the National Housing Act (Section 58), Assisted Rental Programme (Section 58) and CMHC Direct (Sections 58 and 59).

³ Includes government loans under the Veteran's Land Act, the Farm Credit Act and loans for Urban Military Housing.

⁴ Includes Non-Profit (Section 6), National Housing Act.

⁵ Includes Payment Reduction Loan (Section 6), Graduated Payment Mortgage (Section 6) and Approved Lender (Section 6), National Housing Act.

7.2 Dwelling completions by type, by urban area¹, 1986 and 1987 (dwelling units)

Area	1986					1987				
	Single-detached	Semi-detached	Row	Apartment and other	Total	Single-detached	Semi-detached	Row	Apartment and other	Total
Metropolitan area²										
Calgary	2,577	56	11	204	2,848	2,307	68	76	88	2,539
Chicoutimi-Jonquière	380	6	8	854	1,248	559	10	111	508	1,188
Edmonton	2,506	45	45	113	2,709	2,891	104	114	62	3,171
Halifax	1,532	814	64	1,335	3,745	1,633	631	192	913	3,369
Hamilton	2,682	8	438	530	3,658	3,485	48	592	388	4,513
Kitchener	2,271	356	555	609	3,791	2,474	272	692	523	3,961
London	1,736	68	489	743	3,036	2,058	192	1,054	871	4,175
Montreal	10,086	1,501	658	13,519	25,764	14,654	1,419	866	19,695	36,634
Oshawa	1,290	62	—	116	1,468	2,718	284	269	530	3,801
Ottawa-Hull	4,415	357	1,116	4,348	10,236	5,027	406	1,569	2,973	9,975
Ottawa	3,456	121	1,048	2,806	7,431	3,728	118	1,524	1,905	7,275
Hull	959	236	68	1,542	2,805	1,299	288	45	1,068	2,700
Quebec	2,583	396	192	4,370	7,541	3,501	420	458	4,251	8,630
Regina	923	34	—	166	1,123	1,091	34	27	233	1,385
St. Catharines-Niagara	1,343	72	26	543	1,984	1,483	188	272	707	2,650
Saint John, NB	534	12	—	150	696	796	22	69	90	977
St. John's, Nfld.	805	48	24	50	927	1,064	42	29	191	1,326
Saskatoon	1,069	148	32	434	1,683	1,323	90	215	523	2,151
Sherbrooke	446	74	37	1,664	2,221	495	68	4	1,333	1,900
Sudbury	430	34	—	118	582	544	42	89	243	918
Thunder Bay	339	84	—	134	557	328	64	—	243	635
Toronto	20,209	400	969	5,483	27,061	26,603	566	1,710	7,646	36,525
Trois-Rivières	584	28	—	1,415	2,027	844	81	6	726	1,657
Vancouver	7,477	342	1,551	4,404	13,774	8,225	563	1,894	3,428	14,110
Victoria	1,097	95	503	112	1,807	1,443	47	479	187	2,156
Windsor	1,043	27	17	90	1,177	951	47	135	148	1,281
Winnipeg	3,256	48	83	2,357	5,744	3,596	66	231	2,034	5,927
Total	71,613	5,115	6,818	43,861	127,407	90,093	5,774	11,153	48,534	155,554
Large urban centres and urban agglomerations²										
Barrie	707	2	22	211	942	1,269	—	95	200	1,564
Belleville	204	—	—	65	269	418	10	31	201	660
Brantford	401	26	48	16	491	486	12	—	46	544
Charlottetown	299	42	—	200	541	367	50	6	69	492
Chilliwack	226	7	12	130	375	291	20	38	187	536
Cornwall	258	44	4	67	373	307	84	16	94	501
Drummondville	163	30	24	413	630	284	58	—	288	630
Fredericton	397	4	37	183	621	339	4	4	45	392
Granby	151	70	—	322	543	289	110	12	411	822
Guelph	708	8	80	—	796	852	10	134	111	1,107
Kamloops	81	—	7	—	88	206	7	—	—	210
Kelowna	333	4	88	238	663	570	18	235	503	1,326
Kingston	602	131	259	227	1,219	697	234	5	357	1,293
Lethbridge	180	4	3	8	195	187	8	10	—	205
Matsqui	308	2	62	322	694	719	32	120	626	1,497
Medicine Hat	150	4	4	—	158	172	12	38	4	226
Moncton	571	104	104	335	1,114	581	80	42	109	812
Nanaimo	341	4	—	—	345	376	6	—	—	382
North Bay	163	80	86	90	419	212	148	115	143	618
Peterborough	412	2	50	245	709	539	18	108	294	959
Prince George	72	—	—	—	72	100	—	—	6	106
Red Deer	205	4	133	8	350	264	10	126	48	448
Sarnia	262	6	24	137	429	327	6	—	68	401
Sault Ste Marie	128	6	25	35	194	175	2	25	72	274
Shawinigan	188	12	—	355	555	220	6	—	236	462
St-Jean	181	8	—	489	678	330	27	—	527	884
Sydney/Sydney Mines	389	4	7	94	494	411	6	—	25	442
Total	8,080	608	1,079	4,190	13,957	10,988	975	1,160	4,670	17,793
All centres of 10,000 population and over	89,020	6,381	8,514	52,157	156,072	110,162	7,345	12,930	58,402	188,839
Other areas	21,882	1,365	452	4,834	28,533	23,085	519	1,021	4,512	29,137
Canada	110,902	7,746	8,966	56,991	184,605	133,247	7,864	13,951	62,914	217,976

¹ Data for 1986 on 1981 Census definitions. Subsequent data are on 1986 Census definitions.² Changes in area definitions and in population size groupings, resulting from the quinquennial Censuses were incorporated in the surveys in 1956, 1962, 1966, 1972, 1977, 1982 and 1987. The totals shown for Canada exclude the Yukon and Northwest Territories.

7.3 Total private non-farm, non-reserve dwellings, average gross rent, and average owner's major payments¹, by province and Census Metropolitan Area, 1981 and 1986²

Province or territory and area	1981 Average gross rent \$	1986 Average gross rent \$	Percentage increase 1981-86	1981 Average owner's major payments (with a mortgage) \$	1986 Average owner's major payments (with a mortgage) \$	Percentage increase 1981-86
Newfoundland	266	408	53.4	451	614	36.1
Prince Edward Island	265	386	45.7	408	571	40.0
Nova Scotia	269	418	55.4	448	638	42.4
New Brunswick	252	374	48.4	400	556	39.0
Quebec	262	400	52.7	473	625	32.1
Ontario	303	454	49.8	543	776	42.9
Manitoba	268	392	46.3	477	673	41.1
Saskatchewan	269	390	45.0	495	690	39.4
Alberta	386	463	19.9	627	823	31.3
British Columbia	340	460	35.3	588	753	28.1
Yukon	309	441	42.7	659	801	21.5
Northwest Territories	202	360	78.2	677	1,014	49.8
Canada	297	431	45.1	527	719	36.4
Montreal	275	421	53.1	529	706	33.5
Ottawa-Hull						
Ottawa-Hull (Quebec)	289	431	49.1	467	690	47.8
Ottawa-Hull (Ontario)	330	508	53.9	555	888	60.0
Toronto	341	501	46.9	613	885	44.4
Vancouver	361	494	36.8	640	842	31.6

¹ Excludes loss and zero income.

² 1981 figures are based on 1981 Census Metropolitan Area boundaries; 1986 figures are based on 1986 Census Metropolitan Area boundaries.

7.4 New housing price indexes for metropolitan areas (1981 = 100)

Metropolitan area	1982	1983	1984	1985	1986	1987
St. John's (Nfld.)	99.4	99.6	103.0	105.2	107.6	112.9
Halifax	..	..	..	121.9	124.3	128.5
Saint John-Moncton	98.7	102.1	112.8	122.3	126.7	132.8
Quebec	105.9	112.9	118.5	124.9	133.3	145.1
Montreal	107.5	112.0	118.9	123.1	132.2	152.1
Ottawa-Hull	108.3	117.1	126.9	126.5	130.0	137.4
Toronto	101.4	97.1	97.7	100.4	117.1	147.7
Hamilton	106.2	111.0	116.7	123.0	135.5	158.3
St. Catharines-Niagara	100.7	105.8	111.8	124.6	140.2	157.8
London	102.0	102.9	107.8	111.9	127.3	147.8
Kitchener	103.7	109.2	113.2	123.3	141.2	161.5
Windsor	94.8	92.9	98.4	103.4	114.0	121.6
Winnipeg	106.6	109.1	113.3	119.2	126.8	134.2
Regina	104.6	107.0	108.5	109.0	112.7	116.8
Saskatoon	100.3	99.3	99.0	101.2	105.8	110.2
Calgary	101.2	88.3	81.7	83.7	90.7	94.2
Edmonton	98.1	90.5	85.0	79.8	85.6	89.2
Vancouver	79.0	75.9	76.1	73.2	73.6	77.0
Victoria	87.9	84.3	79.1	74.2	70.4	68.8
Canada	97.9	94.7	95.1	96.2	104.4	119.1

7.5 Occupied private dwellings by type, tenure and province or territory

		1976	1981	1986	Percentage change 1981-86
Type of dwelling					
Single-detached	No.	3,991,540	4,735,395	5,171,800	9.2
	%	55.7	57.2	57.5	..
Multiple dwellings ¹	No.	2,999,850	3,330,700	3,703,445	11.2
	%	41.9	40.2	41.2	..
Movable	No.	174,710	215,435	116,425	-46.0
	%	2.4	2.6	1.3	..
Tenure					
Owned	No.	4,431,235	5,141,940	5,580,880	8.5
	%	61.8	62.1	62.1	..
Rented	No.	2,734,860	3,139,595	3,368,480	7.3
	%	38.2	37.9	37.5	..
On reserves	No.	..	..	42,315	..
	%	..	..	0.5	..

7.5 Occupied private dwellings by type, tenure and province or territory (concluded)

		1976	1981	1986	Percentage change 1981-86
Province or territory					
Newfoundland	No.	131,665	148,420	159,080	7.2
	%	1.8	1.8	1.8	...
Prince Edward Island	No.	32,930	37,660	40,690	8.0
	%	0.5	0.5	0.5	...
Nova Scotia	No.	243,100	273,195	295,780	8.3
	%	3.4	3.3	3.3	...
New Brunswick	No.	190,435	214,920	231,680	7.8
	%	2.7	2.6	2.6	...
Quebec	No.	1,894,110	2,172,860	2,357,105	8.5
	%	26.4	26.2	26.2	...
Ontario	No.	2,634,620	2,969,785	3,221,730	8.5
	%	36.8	35.9	35.8	...
Manitoba	No.	328,005	357,985	382,345	6.8
	%	4.6	4.3	4.3	...
Saskatchewan	No.	291,155	332,710	358,270	7.7
	%	4.1	4.0	4.0	...
Alberta	No.	575,280	758,245	836,130	10.3
	%	8.0	9.2	9.3	...
British Columbia	No.	828,290	996,640	1,087,120	9.1
	%	11.6	12.0	12.1	...
Yukon	No.	6,495	7,600	7,975	4.9
	%	0.1	0.1	0.1	...
Northwest Territories	No.	10,020	11,520	13,775	19.6
	%	0.1	0.1	0.2	...
Canada	No.	7,166,095	8,281,530	8,991,675	8.6
	%	100.0	100.0	100.0	...

¹ Multiple dwellings include apartments (less than five storeys and five or more storeys) double houses or semi-detached, row houses, dwellings attached to non-residential structures, duplexes.

7.6 Occupied private dwellings, by tenure and location, 1981 and 1986

Province or territory and type of locality	1981				1986					
	Owned	Rented	Percentage		Owned	Rented	On reserve ¹	Percentage		
			Owned	Rented				Owned	Rented	On reserve
Province										
Newfoundland	119,695	28,725	80.6	19.4	127,355	31,725	—	80.1	19.9	—
Prince Edward Island	28,495	9,160	75.7	24.3	30,125	10,475	100	74.0	25.7	0.2
Nova Scotia	195,310	77,885	71.5	28.5	211,645	83,000	1,140	71.6	28.1	0.4
New Brunswick	157,680	57,240	73.4	26.6	171,815	58,990	875	74.2	25.5	0.4
Quebec	1,157,430	1,015,425	53.3	46.7	1,289,960	1,062,565	4,575	54.7	45.1	0.2
Ontario	1,878,950	1,090,835	63.3	36.7	2,048,085	1,166,160	7,485	63.6	36.2	0.2
Manitoba	235,590	122,395	65.8	34.2	250,420	126,250	5,675	65.5	33.0	1.5
Saskatchewan	242,510	90,200	72.9	27.1	250,970	101,540	5,760	70.1	28.3	1.6
Alberta	478,215	280,025	63.1	36.9	516,085	316,070	3,970	61.7	37.8	0.5
British Columbia	641,450	355,195	64.4	35.6	676,180	398,395	12,545	62.2	36.6	1.2
Yukon and Northwest Territories	6,615	12,505	34.6	65.4	8,245	13,320	190	37.9	61.2	0.9
Canada	5,141,940	3,139,590	62.1	37.9	5,580,875	3,368,480	42,310	62.1	37.5	0.5
Type of locality										
Urban	3,650,415	2,855,680	56.1	43.9	4,026,075	3,074,730	4,065	56.7	43.3	0.1
500,000 and over	1,841,290	1,779,105	50.9	49.1	2,069,440	1,908,855	1,880	52.0	48.0	—
100,000 - 499,999	539,330	367,960	59.4	40.6	590,185	399,005	635	59.6	40.3	0.1
30,000 - 99,999	421,465	276,705	60.4	39.6	482,895	310,985	415	60.8	39.2	0.1
5,000 - 29,999	505,185	281,470	64.2	35.8	536,700	301,110	1,065	64.0	35.9	0.1
Under 5,000	343,160	150,445	69.5	30.5	346,850	154,770	70	69.1	30.8	—
Rural	1,491,520	283,905	84.0	16.0	1,554,805	293,755	38,245	82.4	15.6	2.0
Non-farm	1,234,165	270,450	82.0	18.0	1,322,200	280,325	37,645	80.6	17.1	2.3
Farm	257,350	13,460	95.0	5.0	232,605	13,435	605	94.3	5.4	0.2

¹ For historical and statutory reasons, shelter occupancy on reserves does not lend itself to the usual classification by standard tenure categories. Therefore, a special category "on reserve" has been created for 1986 Census products to apply to all occupied private dwellings on reserves whether originally reported as owned or rented.

7.7 Type of dwelling, by province and by Census Metropolitan Area, 1986

Province and Census Metropolitan Area	Total ¹	Single-detached	Multiple-unit types ²	Single-detached %	Multiple-unit types ² %
Province					
Newfoundland	159,080	122,895	34,425	77.3	21.6
Prince Edward Island	40,690	30,105	9,015	74.0	22.2
Nova Scotia	295,780	207,495	79,880	70.2	27.0
New Brunswick	231,685	169,350	55,275	73.1	23.9
Quebec	2,357,105	1,032,605	1,307,565	43.8	55.5
Ontario	3,221,725	1,850,570	1,359,635	57.4	42.2
Manitoba	382,345	261,980	116,105	68.5	30.4
Saskatchewan	358,270	275,455	74,920	76.9	20.9
Alberta	836,125	528,180	281,695	62.5	33.7
British Columbia	1,087,115	679,005	378,360	62.5	34.8
Yukon	7,975	5,635	2,060	70.7	25.8
Northwest Territories	13,775	8,530	4,310	61.9	31.3
Canada	8,991,675	5,171,800	3,703,445	57.5	41.2
Metropolitan area					
Calgary, Alta.	248,590	139,080	107,900	55.9	43.4
Chicoutimi-Jonquière, Que.	51,305	25,420	25,230	49.5	49.2
Edmonton, Alta.	283,365	163,490	115,970	57.7	40.9
Halifax, NS	103,830	53,610	48,375	51.6	46.6
Hamilton, Ont.	201,330	120,305	80,955	59.8	40.2
Kitchener, Ont.	110,155	61,030	49,075	55.4	44.6
London, Ont.	129,385	72,885	56,220	56.3	43.5
Montreal, Que.	1,115,380	312,050	801,575	28.0	71.9
Oshawa, Ont.	68,010	42,045	25,845	61.8	38.0
Ottawa-Hull, Ont., Que.	302,335	131,060	169,750	43.3	56.1
Quebec, Que.	218,420	90,540	126,300	41.5	57.8
Regina, Sask.	67,675	47,095	20,090	69.6	29.7
Saint John, NB	41,725	22,235	18,135	53.3	43.5
St. Catharines, Ont.	124,580	89,250	35,125	71.6	28.2
St. John's, Nfld.	47,905	26,770	20,695	55.9	43.2
Saskatoon, Sask.	73,960	46,525	26,585	62.9	35.9
Sherbrooke, Que.	48,525	20,205	28,110	41.6	57.9
Sudbury, Ont.	51,595	31,445	19,730	60.9	38.2
Thunder Bay, Ont.	43,665	30,340	13,170	69.5	30.2
Toronto, Ont.	1,199,805	517,710	681,690	43.1	56.8
Trois-Rivières, Que.	47,475	21,700	25,600	45.7	53.9
Vancouver, BC	532,220	283,535	245,700	53.3	46.2
Victoria, BC	105,445	59,705	44,780	56.6	42.5
Windsor, Ont.	91,610	62,705	28,515	68.4	31.1
Winnipeg, Man.	236,325	141,340	94,650	59.8	40.1

¹ Includes mobile homes and other movable dwellings.

² Includes semi-detached houses, row houses, other single attached houses, apartments or flats in a detached duplex, apartments in a building that has less than five storeys and apartments five or more storeys.

7.8 Annual estimates of household facilities and equipment, May 1988

Item	Estimated households 1988 '000	Percentage of households					
		1988 ¹	1987 ¹	1986 ^{1,2}	1985 ¹	1984 ¹	1983
Total households	9,244	...	...	...	...	...	...
Principal heating fuel							
Oil or other liquid fuel	1,704	18.4	19.2	20.2	21.9	25.3	28.3
Piped gas	4,106	44.4	44.9	45.2	44.3	43.5	43.5
Bottled gas	61	0.7	0.6	0.8	0.7	0.7	0.7
Electricity	2,941	31.8	30.6	28.0	28.2	25.1	23.3
Wood	403	4.4	4.3	5.6	4.7	5.3	4.0
Other ³	30	0.3	0.4	0.2	0.3	0.2	0.2
Cooking fuel							
Electricity	8,647	93.5	92.9	92.5	92.3	91.7	91.1
Piped gas	404	4.4	4.9	5.3	5.2	5.7	6.2
Bottled gas	85	0.9	0.9	1.0	1.0	1.2	1.1
Wood or coal	50	0.5	0.6	0.6	0.7	0.9	0.8
Kerosene, oil or other	40	0.4	0.4	0.4	0.6	0.5	0.6
No cooking fuel	...	—	...	0.2	0.1	0.1	...

7.8 Annual estimates of household facilities and equipment, May 1988 (concluded)

Item	Estimated households 1988 '000	Percentage of households					
		1988 ¹	1987 ¹	1986 ^{1,2}	1985 ¹	1984 ¹	1983
Fuel used for piped hot water supply							
Electricity	4,873	52.7	52.7	50.3	52.1	51.2	50.4
Gas	3,815	41.3	41.5	42.0	40.4	40.2	40.1
Oil	482	5.2	5.6	6.7	6.3	7.4	8.1
Coal, wood or other	21	0.2	0.2	0.3	0.3	0.3	0.4
No hot water	53	0.6	0.7	0.7	1.0	0.8	1.0
Running water	9,228	99.8	99.8	99.7	99.0	99.2	99.0
Bath or shower (exclusive use)							
One	7,022	76.0	77.1	78.4	79.2	80.4	80.6
Two or more	2,171	23.5	22.1	20.6	19.7	18.6	18.2
Flush toilet	9,190	99.4	99.4	99.2	99.2	99.2	99.0
Refrigerators and home freezers							
Electric refrigerators	9,206	99.6	99.1	99.3	99.2	99.6	99.6
Home freezers	5,264	56.9	57.4	57.9	57.0	56.1	54.6
Microwave ovens	4,970	53.8	43.3	33.7	22.9	16.1	12.5
Washing machines							
Automatic	6,703	72.5	71.0	70.5	69.9	68.4	66.8
Other electric	417	4.5	5.5	6.0	7.5	8.7	9.5
Clothes dryers	6,560	71.0	69.3	68.5	68.6	67.3	65.8
Telephones	9,099	98.4	98.5	98.2	98.2	98.5	97.7
One	3,372	36.5	41.0	43.4	48.0	51.5	55.5
Two	3,269	35.4	35.0	35.2	50.2	47.1	42.2
Radios							
All types, except car	9,124	98.7	98.8	99.1	98.7	98.9	98.8
FM receivers	8,884	96.1	95.6	95.3	93.8	93.4	91.1
TV sets							
All types							
One	4,470	48.4	50.6	51.3	52.1	53.4	54.3
Two or more	4,643	50.2	47.9	47.3	46.2	44.6	43.6
Colour	8,793	95.1	94.4	93.3	91.4	88.4	87.3
Black and white	2,887	31.2	32.6	36.8	38.7	42.6	43.6
Cable television	6,376	69.0	67.7	65.3	62.4	60.1	59.5
Video cassette recorders (VCRs)	4,809	52.0	45.2	35.4	23.4	12.5	6.4
Cable converters	3,783	40.9	38.8	...	...	...	...
Automobiles							
One	4,919	53.2	53.2	52.6	54.8	55.1	51.2
Two	1,900	25.1	20.7	20.6	22.4	22.1	27.9
Miscellaneous							
Window-type air conditioners	926	10.0	9.8	10.0	10.4	9.1	10.0
Central-unit air conditioners	999	10.8	10.0	8.3	7.5	7.5	7.0
Automatic dishwashers	3,817	41.3	39.7	38.1	37.0	35.2	34.1

¹ Includes mobile homes.² Revised estimates.³ Includes coal or coke.

7.9 Private occupied dwellings, percentage distribution of principal heating fuels, 1981 and 1986

Province and year		Principal heating fuel				
		Oil or kerosene	Piped or bottled gas	Electricity	Other	Total
Newfoundland	1981	51.4	0.1	33.8	14.8	100.0
	1986	30.3	0.1	40.1	29.6	100.0
Prince Edward Island	1981	79.0	0.3	2.8	18.0	100.0
	1986	65.7	0.7	4.7	28.8	100.0
Nova Scotia	1981	75.2	1.1	11.2	12.5	100.0
	1986	57.4	0.9	19.9	21.8	100.0
New Brunswick	1981	59.9	0.4	24.3	15.4	100.0
	1986	32.5	0.3	42.0	25.2	100.0
Quebec	1981	46.4	6.9	43.7	3.0	100.0
	1986	20.7	8.5	64.5	6.2	100.0
Ontario	1981	31.7	47.6	17.7	3.0	100.0
	1986	17.2	54.3	23.9	4.6	100.0
Manitoba	1981	15.9	54.6	25.5	4.0	100.0
	1986	5.5	56.6	32.2	5.7	100.0

7.9 Private occupied dwellings, percentage distribution of principal heating fuels, 1981 and 1986 (concluded)

Province and year		Principal heating fuel				Total
		Oil or kerosene	Piped or bottled gas	Electricity	Other	
Saskatchewan	1981	19.2	70.4	7.1	3.3	100.0
	1986	9.7	75.2	10.0	5.2	100.0
Alberta	1981	3.0	88.9	6.5	1.5	100.0
	1986	1.2	89.5	7.3	2.0	100.0
British Columbia	1981	25.5	46.2	22.8	5.4	100.0
	1986	13.2	50.9	25.7	10.2	100.0
Yukon	1981	63.7	1.6	16.8	17.9	100.0
	1986	42.0	2.4	14.8	40.9	100.0
Northwest Territories	1981	81.9	4.1	5.7	8.4	100.0
	1986	70.1	6.4	9.9	13.6	100.0
Canada	1981	33.8	37.8	24.2	4.1	100.0
	1986	17.6	41.6	33.5	7.2	100.0

7.10 Period of construction, by location, 1986 (percentage distribution)

Province and Census Metropolitan Area	Period of construction				Total
	Before 1946	1946-70	1971-80	1981-86	
Province					
Newfoundland	17.6	39.6	31.5	11.2	100.0
Prince Edward Island	35.3	25.2	30.9	8.7	100.0
Nova Scotia	30.9	30.8	27.8	10.5	100.0
New Brunswick	26.9	31.4	31.9	9.9	100.0
Quebec	21.4	41.4	27.5	9.7	100.0
Ontario	22.9	41.0	27.1	9.0	100.0
Manitoba	22.7	40.7	27.6	9.0	100.0
Saskatchewan	20.2	38.1	28.6	13.1	100.0
Alberta	9.1	35.5	39.5	15.9	100.0
British Columbia	13.8	38.1	34.8	13.3	100.0
Yukon and Northwest Territories	3.6	35.5	45.4	15.5	100.0
Canada	20.3	39.4	29.7	10.6	100.0
Metropolitan area					
Calgary, Alta.	6.6	36.1	40.1	17.2	100.0
Chicoutimi-Jonquière, Que.	18.1	38.1	32.7	11.0	100.0
Edmonton, Alta.	5.7	39.2	39.7	15.3	100.0
Halifax, NS	18.2	38.2	31.2	12.4	100.0
Hamilton, Ont.	22.2	45.7	25.7	6.4	100.0
Kitchener, Ont.	17.9	40.8	31.4	9.9	100.0
London, Ont.	23.0	40.4	29.4	7.3	100.0
Montreal, Que.	18.8	48.2	24.2	8.7	100.0
Oshawa, Ont.	16.2	40.5	31.8	11.5	100.0
Ottawa-Hull, Ont., Que.	13.9	39.9	32.6	13.7	100.0
Quebec, Que.	18.6	38.1	32.1	11.2	100.0
Regina, Sask.	13.9	42.2	31.0	12.9	100.0
Saint John, NB	29.1	32.5	31.1	7.3	100.0
St. Catharines, Ont.	27.1	43.4	24.5	5.1	100.0
St. John's, Nfld.	16.9	35.7	34.1	13.3	100.0
Saskatoon, Sask.	12.8	38.0	31.5	17.6	100.0
Sherbrooke, Que.	17.4	37.1	33.8	11.8	100.0
Sudbury, Ont.	16.7	53.3	25.6	4.3	100.0
Thunder Bay, Ont.	26.4	42.6	24.7	6.2	100.0
Toronto, Ont.	17.3	44.9	26.9	11.0	100.0
Trois-Rivières, Que.	22.1	36.0	30.2	11.7	100.0
Vancouver, BC	15.5	41.3	30.4	12.9	100.0
Victoria, BC	19.5	39.1	30.5	10.9	100.0
Windsor, Ont.	29.5	42.2	24.8	3.5	100.0
Winnipeg, Man.	22.4	42.2	27.0	8.5	100.0

7.11 Construction building materials price indexes (1981 = 100)

Year	Residential					Non-residential				
	Structural	Architectural	Mechanical	Electrical	Total	Structural	Architectural	Mechanical	Electrical	Total
1982	104.2	102.9	110.8	106.3	104.2	109.0	104.0	108.9	106.8	106.3
1983	116.4	108.5	118.7	107.1	111.2	111.8	109.1	117.1	108.7	110.8
1984	115.5	113.8	119.9	116.5	114.9	112.4	115.6	117.5	115.5	115.1
1985	118.4	119.9	122.1	116.4	119.6	115.7	120.6	123.0	116.7	119.3
1986	132.7	129.2	127.5	118.6	129.3	125.1	127.3	128.0	119.5	125.9
1987	138.5	134.5	133.7	121.0	134.6	129.6	132.5	134.2	122.5	130.7

7.12 Union wage rate indexes for major cities, averages of 16 construction trades (1981 = 100)

City and city weights ¹	1984		1985		1986		1987	
	Basic rate	Including supplement	Basic rate	Including supplement	Basic rate	Including supplement	Basic rate	Including supplement
St. John's (1.17)	120.5	124.6	117.3	121.3	128.7	133.3	136.1	142.7
Halifax (1.83)	130.9	132.2	145.0 ²	147.0	154.2	157.7	159.1	163.6
Saint John (1.07)	130.8	130.4	132.7	133.0	134.5	135.5	138.6	142.6
Quebec (3.28)	124.9	125.7	128.6	129.7	131.8	133.3	137.1	140.6
Chicoutimi (0.87)	124.7	125.2	128.4	129.2	131.6	132.7	136.9	139.9
Montreal (13.81)	124.7	125.5	128.4	129.4	131.6	133.0	136.9	140.3
Ottawa (2.80)	128.0	128.7	131.7	133.0	136.3	138.7	141.5	145.1
Toronto (21.72)	124.4	126.0	127.7	129.9	132.3	135.0	137.6	140.0
Hamilton (3.53)	124.2	126.5	127.4	130.3	131.9	135.5	137.3	141.2
St. Catharines (1.93)	125.0	128.0	128.7	132.0	133.3	136.7	138.3	142.0
Kitchener (1.91)	128.8	130.0	133.0	134.4	137.8	136.5	142.5	145.1
London (2.03)	129.6	130.1	133.3	134.3	137.3	139.1	142.1	144.4
Windsor (1.62)	124.8	127.5	128.7	131.5	132.9	136.2	137.9	141.4
Sudbury (1.06)	126.4	128.7	130.0	132.9	134.4	137.8	139.2	143.1
Thunder Bay (0.96)	125.8	128.1	129.3	132.1	133.0	136.9	137.6	142.1
Winnipeg (3.66)	130.5	129.1	132.4	130.6	134.2	132.5	136.7	135.1
Regina (1.64)	132.5	132.7	131.7	132.0	2	2	2	2
Saskatoon (1.68)	132.5	132.7	131.9	132.2	2	2	2	2
Calgary (9.93)	129.0	129.8	129.4	130.2	2	2	2	2
Edmonton (9.65)	130.0	130.5	130.2	130.7	2	2	2	2
Vancouver (11.60)	125.8	126.5	127.6	130.2	128.8	132.1	128.8	132.1
Victoria (2.25)	125.6	126.4	127.8	130.2	129.1	132.1	129.1	132.1
Total	126.6	127.6	129.2	130.7	132.4	134.4	136.6	139.5

¹ The weights used are based on estimates of gross earnings of each trade in each metropolitan area, derived from 1981 Census data.² Confidential.**7.13 Output price indexes of non-residential construction (1981 = 100)**

City	Commercial building (office, warehouse, shopping centre)				Industrial building (factory)			
	1984	1985	1986	1987	1984	1985	1986	1987
Halifax	111.3	113.1	117.6	120.1	114.9	121.0	126.2	130.2
Montreal	113.6	118.0	124.3	131.7	111.4	116.9	124.1	130.7
Ottawa	116.5	120.3	123.5	129.0	117.7	122.6	125.3	130.5
Toronto	115.9	121.5	129.6	144.2	116.1 [†]	123.8	131.9	144.1
Calgary	93.1	91.0	92.8	93.3	92.3	90.4	92.5	93.2
Edmonton	92.3	90.7	90.2	92.3	93.6	91.5	91.3	92.0
Vancouver	102.0	102.3	105.5	107.3	105.5 [†]	105.8	108.9	111.9
Seven-city composite	103.3	105.5	110.6	119.2	107.4	111.7	117.9	126.1
	Institutional building (school)				Total			
	1984	1985	1986	1987	1984	1985	1986	1987
Halifax	112.8	116.7	122.2	126.2	112.2	115.0	119.6	122.4
Montreal	114.7	118.6	124.9	132.3	113.3	117.8	124.3	131.7
Ottawa	116.1 [†]	120.6	125.1	130.0	116.6	120.7	124.4	129.6
Toronto	118.5	123.1 [†]	128.4	137.7	116.2	122.0	129.6	143.1
Calgary	94.3	92.6	94.9	95.6	93.1 [†]	91.3	92.2	93.8
Edmonton	95.7	94.4	96.4	98.9	93.3	91.8 [†]	92.5	94.6
Vancouver	107.4	108.1	112.3	115.1	104.0	104.4	107.6	109.7
Seven-city composite	105.9	107.6	111.8	117.3	104.3	106.7	111.7	119.7

7.14 Value of construction work purchased, by new and repair, current and constant dollars, 1979-88¹

Year	New		Repair		Total		Total construction as percentage of Gross Domestic Expenditure	
	Current dollars \$'000,000	Constant 1981 dollars \$'000,000	Current dollars \$'000,000	Constant 1981 dollars \$'000,000	Current dollars \$'000,000	Constant 1981 dollars \$'000,000	Current dollars %	Constant 1981 dollars %
1979	35,847	44,092	7,176	8,296	43,023	52,388	15.6	15.5
1980	40,153	44,714	8,174	8,982	48,327	53,696	15.6	15.6
1981	47,859	47,859	9,025	9,025	56,884	56,884	16.0	16.0
1982	46,517	43,759	9,548	9,119	56,065	52,878	15.0	15.3
1983	45,678	42,412	10,270	8,930	55,948	51,342	13.8	14.4
1984	45,770	40,976	10,804	9,087	56,574	50,063	12.7	13.3
1985	58,090	50,601	9,893	8,063	67,983	58,664	14.2	14.9
1986	61,117	51,576	10,584	8,347	71,701	59,923	14.1	14.7
1987	69,623	55,213	11,233	8,647	80,856	63,860	14.6	15.1
1988	73,508	..	11,771	..	85,279	..	..	..

¹ Actual expenditures, 1979-86; preliminary actual, 1987; intentions, 1988.**7.15 Value of construction work purchased, by contractors and others, 1984-88¹ (million dollars)**

Year	Contract construction			Other construction			Total construction		
	New	Repair ²	Sub-total	New	Repair ²	Sub-total	New	Repair ²	Total
1984	31,985	5,227	37,212	13,785	5,577	19,362	45,770	10,804	56,574
1985	40,289	4,632	44,921	17,801	5,261	23,062	58,090	9,893	67,983
1986	44,488	5,154	49,642	16,629	5,430	22,058	61,117	10,584	71,701
1987	52,292	5,555	57,847	17,331	5,678	23,009	69,623	11,233	80,856
1988	53,725	5,825	59,550	19,783	5,946	25,729	73,508	11,771	85,279

¹ Actual expenditures, 1984-86; preliminary actual, 1987; intentions, 1988.² A breakdown of repair expenditures for residential construction by type of structure is available for single-detached homes and other (e.g., multiple housing) on request. Total repair expenditures are published within the "other" residential category. For new residential construction, "other" includes expenditures on mobile homes, cottages, conversions, major alterations, improvements and acquisition costs.**7.16 Value of building permits issued, by province, 1986 and 1987 (million dollars)**

Year and province or territory	Residential construction			Non-residential construction			Total
	New	Improvements	Total	Industrial	Commercial	Institutional and governmental	
1986							
Newfoundland	103.5	16.3	119.8	6.2	63.7	17.8	207.5
Prince Edward Island	57.2	8.7	65.9	6.1	21.9	13.0	106.9
Nova Scotia	413.3	58.6	471.9	42.5	139.4	101.8	755.6
New Brunswick	192.5	36.8	229.3	20.8	80.6	130.4	461.1
Quebec	3,182.7	435.4	3,618.1	467.6	1,464.9	336.1	5,886.7
Ontario	6,076.5	572.4	6,648.9	1,112.0	2,820.2	778.4	11,359.5
Manitoba	466.5	54.2	520.7	24.1	171.7	93.4	809.9
Saskatchewan	318.9	40.1	359.0	42.3	139.7	200.5	741.5
Alberta	569.2	75.6	644.8	64.2	667.0	464.7	1,840.7
British Columbia	1,361.9	146.1	1,508.0	110.5	555.8	245.9	2,420.2
Yukon	9.4	2.4	11.8	1.9	10.2	33.6	57.5
Northwest Territories	18.9	2.0	20.9	1.0	16.9	4.2	43.0
Total	12,770.5	1,448.6	14,219.1	1,899.2	6,152.0	2,419.8	24,690.1
1987							
Newfoundland	104.5	20.0	124.5	20.1	54.9	35.9	235.4
Prince Edward Island	62.0	10.0	72.0	9.2	20.7	21.6	123.5
Nova Scotia	399.1	59.1	458.2	57.4	200.8	57.6	774.0
New Brunswick	190.7	45.1	235.8	34.6	111.4	134.9	516.7
Quebec	4,363.2	543.9	4,907.1	1,147.7	1,646.8	400.6	8,102.2
Ontario	8,645.4	732.2	9,377.6	1,154.7	3,272.9	1,028.4	14,833.6

7.16 Value of building permits issued, by province, 1986 and 1987 (million dollars) (concluded)

Year and province or territory	Residential construction			Non-residential construction			Total
	New	Improvements	Total	Industrial	Commercial	Institutional and governmental	
1987 (concluded)							
Manitoba	455.9	59.8	515.7	35.9	226.5	84.6	862.7
Saskatchewan	249.5	52.8	302.3	46.3	198.8	118.7	666.1
Alberta	804.5	82.3	886.8	145.5	639.2	188.5	1,860.0
British Columbia	1,755.9	150.9	1,906.8	151.4	648.5	199.4	2,906.1
Yukon	19.8	3.0	22.8	2.0	8.3	16.8	49.9
Northwest Territories	20.1	2.8	22.9	1.2	10.2	16.4	50.7
Total	17,070.6	1,761.9	18,832.5	2,806.0	7,039.0	2,303.4	30,980.9

7.17 Value of building permits issued in the most active municipalities, by province, 1984-87 (million dollars)

Province and municipality	1984	1985	1986	1987	Province and municipality	1984	1985	1986	1987
Newfoundland					Ontario (cont'd)				
St. John's	54.1	79.8	88.1	88.5	Mississauga	429.2	647.5	1,095.9	1,361.1
Prince Edward Island					Nepean	112.7	143.6	176.2	180.6
Charlottetown	12.9	24.2	17.7	16.8	Newmarket	25.2	66.4	70.6	104.7
Nova Scotia					North York	331.0	398.9	606.9	638.9
Dartmouth	73.2	97.1	80.1	96.0	Oakville	94.4	154.3	259.7	400.6
Halifax	121.2	122.5	129.2	178.9	Oshawa	99.9	112.8	156.9	120.2
New Brunswick					Ottawa	402.6	389.7	330.3	493.2
Fredericton	35.3	46.2	72.8	43.0	Pickering	65.9	127.8	184.2	225.2
Moncton	32.0	45.9	51.4	78.6	Richmond Hill	82.4	111.7	313.4	569.8
Saint John	56.5	40.8	47.8	62.0	St. Catharines	32.7	77.3	87.1	119.7
Quebec					Scarborough	307.5	495.5	490.1	664.9
Gatineau	86.6	66.6	100.9	118.6	Toronto	514.0	587.8	867.2	988.4
Hull	140.6	163.2	86.1	62.3	Vaughan	296.5	509.2	633.0	654.2
Jonquière	36.8	58.9	50.9	42.3	Waterloo	46.9	107.0	158.0	142.6
Laval	199.3	248.0	441.3	622.5	Whitby	48.7	68.1	115.0	102.3
Longueuil	62.5	90.1	137.7	188.0	Windsor	58.1	96.4	106.3	141.6
Montreal	734.5	680.0	1,022.1	811.7	Manitoba				
Quebec	128.5	221.0	225.0	228.8	Winnipeg	418.7	518.8	600.8	644.7
St. Laurent	44.7	90.6	102.0	54.4	Saskatchewan				
Ste-Foy	47.1	99.6	118.0	157.1	Regina	155.8	136.5	198.7	194.8
Sherbrooke	51.2	60.5	95.9	94.0	Saskatoon	201.8	185.6	259.8	230.6
Ontario					Alberta				
Ajax	65.9	69.0	146.5	196.6	Calgary	398.4	474.3	569.6	647.6
Brampton	213.0	288.3	414.7	547.6	Edmonton	319.4	476.0	530.8	386.9
Burlington	66.5	100.7	152.5	227.0	Lethbridge	43.0	103.4	42.6	59.8
Cumberland	65.0	93.1	63.7	98.9	Medicine Hat	29.8	65.4	26.6	29.5
Etobicoke	204.5	196.1	180.1	242.8	British Columbia				
Gloucester	180.9	149.0	116.8	168.6	Burnaby	148.7	129.9	162.8	193.7
Hamilton	131.1	199.3	381.2	280.3	North Vancouver	21.3	66.1	43.7	41.1
Kitchener	63.7	100.3	163.4	283.7	Richmond	70.8	112.8	134.9	143.4
London	131.9	198.0	327.1	427.9	Saanich	55.6	76.3	78.9	91.9
Markham	241.0	309.5	295.6	549.2	Surrey	175.6	216.0	310.3	347.3
					Vancouver	577.2	568.3	460.2	613.9

7.18 Estimated value of building permits issued in metropolitan areas (million dollars)

Metropolitan area	1984	1985	1986	1987	Metropolitan area	1984	1985	1986	1987
Calgary	398.4	474.3	569.6	647.6	St. Catharines-Niagara	111.8	176.4	250.8	304.9
Chicoutimi-Jonquière	80.1	118.6	107.4	279.2	Saint John, NB	8.6	71.4	83.8	99.0
Edmonton	378.8	563.2	640.8	497.2	St. John's, Nfld.	89.8	128.1	150.5	157.5
Halifax	313.9	369.2	384.8	452.3	Saskatoon	201.8	185.6	259.8	230.6
Hamilton	289.3	450.5	695.3	710.0	Sudbury	46.9	48.8	66.6	114.8
Kitchener	153.7	291.9	451.0	670.1	Thunder Bay	38.4	64.4	79.2	98.3
London	146.9	224.2	362.6	477.6	Toronto	3,052.9	4,177.1	5,898.7	7,523.1
Montreal	1,875.8	2,083.6	3,285.7	4,141.7	Trois-Rivières	89.0	104.5	128.8	155.7
Oshawa	148.7	180.9	271.9	222.5	Vancouver	1,284.5	1,475.0	1,602.8	1,901.7
Ottawa-Hull	1,157.5	1,172.9	1,069.2	1,379.2	Victoria	176.4	215.1	229.7	290.4
Quebec	378.0	545.4	662.6	850.7	Windsor	83.9	149.4	184.5	235.9
Regina	155.8	136.5	198.9	198.9	Winnipeg	423.7	526.4	611.3	657.4

7.19 Capital expenditures on construction and on machinery and equipment, in current and constant (1981 dollars), 1976-88¹ (million dollars)

Year	Private and public investment						Percentage of GDE ²	
	Capital expenditures						Current dollars	Constant 1981 dollars
	Construction		Machinery and equipment		Total			
	Current dollars	Constant 1981 dollars	Current dollars	Constant 1981 dollars	Current dollars	Constant 1981 dollars		
1976	28,144	42,006	15,492	17,485	43,636	59,491	22.0	19.8
1977	30,130	42,859	16,467	17,518	46,597	60,377	21.4	19.4
1978	31,912	42,549	18,448	18,863	50,360	61,412	20.8	18.9
1979	35,847	44,092	22,508	21,684	58,355	65,776	21.1	19.4
1980	40,157	44,718	26,036	26,379	66,193	71,097	21.4	20.7
1981	47,860	47,860	31,744	31,744	79,604	79,604	22.4	22.4
1982	46,518	43,761	30,244	28,318	76,762	72,079	20.5	20.9
1983	45,676	42,410	27,843	26,267	73,519	68,677	18.1	19.3
1984	45,770	40,976	29,608	27,827	75,378	68,803	16.9	18.2
1985	58,090	50,601	32,414	29,361	90,504	79,962	18.9	20.3
1986	61,117	51,576	35,969	32,669	97,086	84,245	19.0	20.7
1987	69,623	55,213	38,906	36,635	108,529	91,848	19.6	21.7
1988	73,507	..	46,034	..	119,541	..	..	..
1988	76,061	..	46,891	..	122,952	..	..	..

¹ Actual expenditures 1976-86; preliminary actual 1987; intentions 1988; revised intentions, 1988.

² The percentage is calculated by dividing "Gross Fixed Capital Formation", as defined by the National Income and Expenditure Accounts, by the total "Gross Domestic Expenditure".

7.20 Summary of capital and repair expenditures by economic sector, 1986-88¹ (million dollars)

Year and sector	Capital expenditures			Repair expenditures			Capital and repair expenditures		
	Construction	Machinery and equipment	Sub-total	Construction	Machinery and equipment	Sub-total	Construction	Machinery and equipment	Total
1986									
Agriculture and fishing	781.3	1,980.0	2,761.3	241.6	1,217.3	1,458.9	1,022.9	3,197.3	4,220.2
Forestry	108.7	121.8	230.5	78.8	219.1	297.9	187.5	340.9	528.4
Mining, quarrying and oil wells	6,624.5	1,072.4	7,696.9	447.3	2,082.2	2,529.5	7,071.8	3,154.6	10,226.4
Construction industry	289.0	1,155.0	1,444.0	59.1	924.2	983.3	348.1	2,079.2	2,427.3
Manufacturing	2,525.5	11,723.8	14,249.3	868.9	5,651.4	6,520.3	3,394.4	17,375.2	20,769.6
Utilities	6,412.0	6,906.2	13,318.2	2,046.6	5,158.2	7,204.8	8,458.6	12,064.4	20,523.0
Trade	780.4	1,853.1	2,633.5	256.5	407.0	663.5	1,036.9	2,260.1	3,297.0
Finance, insurance and real estate	5,837.2	1,293.3	7,130.5	675.3	280.4	955.7	6,512.5	1,573.7	8,086.2
Commercial services	1,372.4	6,804.5	8,176.9	223.5	677.9	901.4	1,595.9	7,482.4	9,078.3
Institutions	2,433.7	1,090.7	3,524.4	517.3	249.3	766.6	2,951.0	1,340.0	4,291.0
Government departments	8,187.6	1,968.2	10,155.8	2,046.7	475.6	2,522.3	10,234.3	2,443.8	12,678.1
Housing ²	25,764.3	—	25,764.3	3,121.0	—	3,121.0	28,885.3	—	28,885.3
Total	61,116.6	35,969.0	97,085.6	10,582.6	17,342.6	27,925.2	71,699.2	53,311.6	125,010.8
1987									
Agriculture and fishing	739.1	1,875.0	2,614.1	254.1	1,271.4	1,525.5	993.2	3,146.4	4,139.6
Forestry	111.1	118.9	230.0	75.2	225.4	300.6	186.3	344.3	530.6
Mining, quarrying and oil wells	5,621.9	1,080.6	6,702.5	432.9	2,110.5	2,543.4	6,054.8	3,191.1	9,245.9
Construction industry	315.0	1,262.0	1,577.0	60.4	915.6	976.0	375.4	2,177.6	2,553.0
Manufacturing	2,703.2	12,250.3	14,953.5	935.6	5,837.7	6,773.3	3,638.8	18,088.0	21,726.8
Utilities	6,930.0	7,676.9	14,606.9	1,978.6	5,311.6	7,290.2	8,908.6	12,988.5	21,897.1
Trade	813.7	1,929.3	2,743.0	239.0	370.1	609.1	1,052.7	2,299.4	3,352.1
Finance, insurance and real estate	7,196.5	1,787.0	8,983.5	795.0	327.2	1,122.2	7,991.5	2,114.2	10,105.7
Commercial services	1,478.6	7,620.7	9,099.3	260.6	691.5	952.1	1,739.2	8,312.2	10,051.4
Institutions	2,612.1	1,130.5	3,742.6	842.3	281.3	1,123.6	3,454.4	1,411.8	4,866.2
Government departments	8,298.6	2,174.6	10,473.2	2,158.7	518.1	2,676.8	10,457.3	2,692.7	13,150.0
Housing ²	32,803.3	—	32,803.3	3,200.0	—	3,200.0	36,003.3	—	36,003.3
Total	69,623.1	38,905.8	108,528.9	11,232.4	17,860.4	29,092.8	80,855.5	56,766.2	137,621.7

7.20 Summary of capital and repair expenditures by economic sector, 1986-88¹ (million dollars) (concluded)

Year and sector	Capital expenditures			Repair expenditures			Capital and repair expenditures		
	Con- struction	Machinery and equipment	Sub- total	Con- struction	Machinery and equipment	Sub- total	Con- struction	Machinery and equipment	Total
1988									
Agriculture and fishing	761.0	1,888.4	2,649.4	267.8	1,360.1	1,627.9	1,028.8	3,248.5	4,277.3
Forestry	136.7	155.1	291.8	76.1	230.3	306.4	212.8	385.4	598.2
Mining, quarrying and oil wells	7,081.1	1,476.8	8,557.9	492.4	2,223.2	2,715.6	7,573.5	3,700.0	11,273.5
Construction industry	337.0	1,431.0	1,768.0	64.4	1,069.8	1,134.2	401.4	2,500.8	2,902.2
Manufacturing	2,877.4	15,484.6	18,362.0	973.2	6,128.3	7,101.5	3,850.6	21,612.9	25,463.5
Utilities	8,129.5	9,771.3	17,900.8	2,082.4	5,552.2	7,634.6	10,211.9	15,323.5	25,535.4
Trade	859.3	2,133.7	2,993.0	249.6	378.6	628.2	1,108.9	2,512.3	3,621.2
Finance, insurance and real estate	7,852.6	1,895.2	9,747.8	873.5	342.0	1,215.5	8,726.1	2,237.2	10,963.3
Commercial services	1,447.2	8,422.1	9,869.3	281.3	746.5	1,027.8	1,728.5	9,168.6	10,897.1
Institutions	2,557.6	1,035.8	3,593.4	890.1	285.5	1,175.6	3,447.7	1,321.3	4,769.0
Government departments	9,116.3	2,339.8	11,456.1	2,219.3	532.7	2,752.0	11,335.6	2,872.5	14,208.1
Housing ^{2,3}	32,351.1	—	32,351.1	3,300.0	—	3,300.0	35,651.1	—	35,651.1
Total	73,506.8	46,033.8	119,540.6	11,770.1	18,849.2	30,619.3	85,276.9	64,883.0	150,159.9

¹ Actual expenditures, 1986; preliminary actual, 1987; intentions 1988.

² Housing expenditures are derived from the data available at the time of publication. Revised and adjusted data are available in CANSIM.

³ Residential capital expenditures are arrived at by estimating the value of work put in place on private and public housing starts.

7.21 Capital and repair expenditures by province, 1986-88^{1,2} (million dollars)

Year and province or territory	Capital expenditures			Repair expenditures			Capital and repair expenditures		
	Con- struction	Machinery and equipment	Sub- total	Con- struction	Machinery and equipment	Sub- total	Con- struction	Machinery and equipment	Total
1986									
Newfoundland	1,409.3	617.1	2,026.4	202.1	347.3	549.4	1,611.4	964.4	2,575.8
Prince Edward Island	236.9	87.0	323.9	56.8	48.9	105.7	293.7	135.9	429.6
Nova Scotia	1,948.6	902.5	2,851.1	417.0	411.7	828.7	2,365.6	1,314.2	3,679.8
New Brunswick	1,224.3	714.5	1,938.8	247.1	454.2	701.3	1,471.4	1,168.7	2,640.1
Quebec	13,254.1	7,775.4	21,029.5	2,324.3	3,619.5	5,943.8	15,578.4	11,394.9	26,973.3
Ontario	21,784.1	16,611.8	38,395.9	3,520.6	6,083.1	9,603.7	25,304.7	22,694.9	47,999.6
Manitoba	2,415.0	1,169.4	3,584.4	382.7	746.4	1,129.1	2,797.7	1,915.8	4,713.5
Saskatchewan	2,436.0	1,337.3	3,773.3	524.0	837.2	1,361.2	2,960.0	2,174.5	5,134.5
Alberta	8,996.1	3,501.9	12,498.0	1,353.1	2,298.4	3,651.5	10,349.2	5,800.3	16,149.5
British Columbia	6,474.2	3,101.7	9,575.9	1,431.2	2,348.1	3,779.3	7,905.4	5,449.8	13,355.2
Yukon and Northwest Territories	938.0	150.4	1,088.4	123.7	147.8	271.5	1,061.7	298.2	1,359.9
Total	61,116.6	35,969.0	97,085.6	10,582.6	17,342.6	27,925.2	71,699.2	53,311.6	125,010.8
1987									
Newfoundland	1,368.3	542.1	1,910.4	207.4	337.9	545.3	1,575.7	880.0	2,455.7
Prince Edward Island	249.1	87.4	336.5	46.0	47.2	93.2	295.1	134.6	429.7
Nova Scotia	1,939.8	1,079.8	3,019.6	470.3	457.7	928.0	2,410.1	1,537.5	3,947.6
New Brunswick	1,362.5	764.6	2,127.1	281.0	498.0	779.0	1,643.5	1,262.6	2,906.1
Quebec	15,604.3	8,574.2	24,178.5	2,525.3	3,843.0	6,368.3	18,129.6	12,417.2	30,546.8
Ontario	26,625.5	17,420.2	44,045.7	3,585.1	6,270.6	9,855.7	30,210.6	23,690.8	53,901.4
Manitoba	2,395.4	1,192.9	3,588.3	538.9	725.9	1,264.8	2,934.3	1,918.8	4,853.1
Saskatchewan	2,781.9	1,542.4	4,324.3	528.0	831.7	1,359.7	3,309.9	2,374.1	5,684.0
Alberta	9,052.7	3,860.6	12,913.3	1,386.7	2,294.2	3,680.9	10,439.4	6,154.8	16,594.2
British Columbia	7,560.2	3,677.7	11,237.9	1,553.0	2,394.0	3,947.0	9,113.2	6,071.7	15,184.9
Yukon and Northwest Territories	683.4	163.9	847.3	110.7	160.2	270.9	794.1	324.1	1,118.2
Total	69,623.1	38,905.8	108,528.9	11,232.4	17,860.4	29,092.8	80,855.5	56,766.2	137,621.7
1988									
Newfoundland	1,340.7	712.3	2,053.0	222.0	358.1	580.1	1,562.7	1,070.4	2,633.1
Prince Edward Island	277.7	95.7	373.4	50.4	47.3	97.7	328.1	143.0	471.1
Nova Scotia	2,038.3	1,350.2	3,388.5	500.0	490.4	990.4	2,538.3	1,840.6	4,378.9
New Brunswick	1,412.0	795.1	2,207.1	288.2	509.1	797.3	1,700.2	1,304.2	3,004.4
Quebec	16,014.4	10,076.0	26,090.4	2,674.0	4,048.8	6,722.8	18,688.4	14,124.8	32,813.2
Ontario	27,568.3	20,048.6	47,616.9	3,747.9	6,681.3	10,429.2	31,316.2	26,729.9	58,046.1

7.21 Capital and repair expenditures by province, 1986-88^{1,2} (million dollars) (concluded)

Year and province or territory	Capital expenditures			Repair expenditures			Capital and repair expenditures		
	Con- struction	Machinery and equipment	Sub- total	Con- struction	Machinery and equipment	Sub- total	Con- struction	Machinery and equipment	Total
1988 (concluded)									
Manitoba	2,622.7	1,312.0	3,934.7	565.5	779.1	1,344.6	3,188.2	2,091.1	5,279.3
Saskatchewan	2,972.5	1,748.5	4,721.0	552.0	876.5	1,428.5	3,524.5	2,625.0	6,149.5
Alberta	10,486.6	4,811.3	15,297.9	1,453.6	2,412.3	3,865.9	11,940.2	7,223.6	19,163.8
British Columbia	8,178.4	4,793.6	12,972.0	1,592.3	2,485.1	4,077.4	9,770.7	7,278.7	17,049.4
Yukon and Northwest Territories	595.2	290.5	885.7	124.2	161.2	285.4	719.4	451.7	1,171.1
Total	73,506.8	46,033.8	119,540.6	11,770.1	18,849.2	30,619.3	85,276.9	64,883.0	150,159.9

¹ Actual expenditures, 1986; preliminary actual, 1987; intentions, 1988.² Capital expenditures on machinery and equipment include an estimate for "capital items charged to operating expenses" in the manufacturing, utilities and trade totals.**7.22 Value of building construction work performed, by type of structure, 1987 and 1988^{1,2} (thousand dollars)**

Type of structure	1987 ³			1988 ³		
	New	Repair	Total	New	Repair	Total
Residential						
Single-detached	13,276,644	—	13,276,644	12,395,651	—	12,395,651
Semi-detached (incl. duplexes)	536,322	—	536,322	401,282	—	401,282
Apartments (incl. row housing)	5,255,103	—	5,255,103	4,778,947	—	4,778,947
Other ¹	13,735,137	3,200,000	16,935,137	14,775,346	3,300,000	18,075,346
Sub-total, residential	32,803,206	3,200,000	36,003,206	32,351,226	3,300,000	35,651,226
Industrial						
Factories, plants, workshops, food canneries and smelters	2,129,897	725,296	2,855,193	2,220,776	772,921	2,993,697
Mine and mine mill buildings	128,180	60,674	188,854	138,554	68,998	207,552
Railway stations and roadway buildings	6,736	34,508	41,244	17,463	35,204	52,667
Railway shops, engine houses, water and fuel stations	60,929	43,134	104,063	41,458	44,008	85,466
Sub-total, industrial	2,325,742	863,612	3,189,354	2,418,251	921,131	3,339,382
Commercial						
Warehouses, storehouses, refrigerated storage, etc.	902,435	140,044	1,042,479	995,096	150,637	1,145,733
Grain elevators	46,993	22,981	69,974	58,989	25,897	84,886
Hotels, clubs, restaurants, cafeterias and tourist cabins	832,793	113,143	945,936	807,118	118,931	926,049
Office buildings	4,753,191	741,275	5,494,466	4,803,015	796,686	5,599,701
Stores, retail and wholesale	2,725,419	405,992	3,131,411	3,454,661	436,752	3,891,413
Garages and service stations	400,960	135,609	536,569	443,017	149,284	592,301
Theatres, arenas, amusement and recreational buildings	714,671	132,701	847,372	711,923	144,842	856,765
Laundries and dry cleaning establishments	—	—	—	—	—	—
Sub-total, commercial	10,376,462	1,691,745	12,068,207	11,273,819	1,823,029	13,096,848
Institutional						
Schools and other educational buildings	1,423,201	660,605	2,083,806	1,313,912	705,946	2,019,858
Churches and other religious buildings	105,506	23,093	128,599	97,088	21,294	118,382
Hospitals, sanatoria, clinics and first-aid stations, etc.	884,834	153,442	1,038,276	960,430	156,992	1,117,422
Other institutional buildings	844,075	76,873	920,948	866,747	79,624	946,371
Sub-total, institutional	3,257,616	914,013	4,171,629	3,238,177	963,856	4,202,033

7.22 Value of building construction work performed, by type of structure, 1987 and 1988^{1,2} (thousand dollars) (concluded)

Type of structure	1987 ³			1988 ³		
	New	Repair	Total	New	Repair	Total
Other building construction						
Farm buildings (excl. dwellings)	479,804	160,129	639,933	492,693	168,781	661,474
Broadcasting, radio and television, relay and booster stations and telephone exchanges	96,798	54,151	150,949	87,599	58,333	145,932
Aircraft hangars	12,123	31,989	44,112	30,463	33,478	63,941
Passenger terminals, bus, boat, air and other	121,748	15,504	137,252	238,613	16,411	255,024
Armouries, barracks, drill halls, etc.	33,937	30,574	64,511	37,163	31,837	69,000
Bunkhouses, dormitories, camp						
cookeries, bush depots and camps	8,390	11,493	19,883	8,707	12,180	20,887
Laboratories	197,973	19,449	217,422	214,080	20,266	234,346
Other building construction	407,823	113,804	521,627	415,478	121,042	536,520
Sub-total, other building construction	1,358,596	437,093	1,795,689	1,524,796	462,328	1,987,124
Total building construction	50,121,622	7,106,463	57,228,085	50,806,269	7,470,344	58,276,613
Total construction	69,622,827	11,233,232	80,856,059	73,507,953	11,771,082	85,279,035

¹ See footnote 2, table 7.15.² Due to changes in the Capital and Repair Expenditures Survey, which collects structure detail, the following changes have taken place in this data series.³ Preliminary actual expenditures, 1987; intentions 1988.

7.23 Value of engineering construction work performed, by type of structure, 1987 and 1988¹ (thousand dollars)

Type of structure	1987			1988		
	New	Repair	Total	New	Repair	Total
Marine construction						
Docks, wharves, piers and breakwater	137,292	64,222	201,514	244,296	69,671	313,967
Retaining walls, embankments and riprapping	—	—	—	—	—	—
Canals and waterways	111,600	5,096	116,696	117,013	5,306	122,319
Dredging and pile driving	6,787	16,177	22,964	12,510	16,946	29,456
Dyke construction	—	—	—	—	—	—
Logging booms	—	—	—	—	—	—
Other marine construction	17,842	2,122	19,964	21,073	2,364	23,437
Sub-total, marine construction	273,521	87,617	361,138	394,892	94,287	489,179
Road, highway and airport runways						
Highway, road and street construction (incl. grading, scraping, oiling, filling)	3,669,218	1,197,457	4,866,675	3,850,212	1,222,845	5,073,057
Parking lots	100,975	16,890	117,865	98,348	18,154	116,502
Sidewalks and paths	—	—	—	—	—	—
Runways, landing fields and tarmac	59,086	21,148	80,234	72,659	21,605	94,264
Sub-total, road, highway and airport runways	3,829,279	1,235,495	5,064,774	4,021,219	1,262,604	5,283,823
Waterworks and sewage systems						
Tile drains, drainage ditches and storm sewers	433,798	72,467	506,265	484,498	75,506	560,004
Water mains, hydrants and services	513,078	110,355	623,433	566,448	117,438	683,886
Sewage systems, disposal plants and connections	651,633	73,392	725,025	733,175	78,083	811,258
Water pumping stations and filtration plants	356,694	32,002	388,696	407,404	34,400	441,804
Water storage tanks	47,757	2,544	50,301	53,685	2,679	56,364
Sub-total, waterworks and sewage systems	2,002,960	290,760	2,293,720	2,245,210	308,106	2,553,316

7.23 Value of engineering construction work performed, by type of structure, 1987 and 1988¹ (thousand dollars) (concluded)

Type of structure	1987			1988		
	New	Repair	Total	New	Repair	Total
Dams and irrigation						
Dams and reservoirs	113,779	11,880	125,659	142,682	12,016	154,698
Irrigation and land reclamation projects	102,099	20,335	122,434	110,442	21,433	131,875
Sub-total, dams and irrigation	215,878	32,215	248,093	253,124	33,449	286,573
Electric power construction						
Electric power generating plants, including water conveying and controlling structures	1,506,699	149,290	1,655,989	1,950,509	157,945	2,108,454
Electric transformer stations	—	—	—	—	—	—
Power transmission and distribution lines and trolley wires	1,721,078	247,980	1,969,058	2,071,578	262,963	2,334,541
Street lighting	—	—	—	—	—	—
Sub-total, electric power construction	3,227,777	397,270	3,625,047	4,022,087	420,908	4,442,995
Railway, telephone and telegraph						
Railway tracks and roadbeds	611,769	692,809	1,304,578	556,270	709,775	1,266,045
Signals and interlockers	—	—	—	—	—	—
Telegraph, telephone and cablevision lines, and underground and marine cables and microwave	1,319,966	329,809	1,649,775	1,405,004	353,260	1,758,264
Sub-total, railway, telephone and telegraph	1,931,735	1,022,618	2,954,353	1,961,274	1,063,035	3,024,309
Gas and oil facilities						
Gas mains and services	350,601	48,370	398,971	337,615	52,513	390,128
Pumping stations, oil	—	555	555	—	613	613
Pumping stations, gas	2,479	3,674	6,153	2,450	3,988	6,438
Oil storage tanks	25,691	8,102	33,793	20,554	8,576	29,130
Gas storage tanks	13,074	10,001	23,075	9,022	11,039	20,061
Oil pipelines	164,146	29,871	194,017	158,583	32,904	191,487
Gas pipelines	278,389	32,028	310,417	486,089	27,779	513,868
Oil and gas wells	3,854,508	104,627	3,959,135	5,059,105	118,950	5,178,055
Oil refinery — processing units	405,791	211,607	617,398	484,600	203,530	688,130
Natural gas processing plants	190,386	182,638	373,024	264,173	207,667	471,840
Sub-total, gas and oil facilities	5,285,065	631,473	5,916,538	6,822,191	667,559	7,489,750
Other engineering construction						
Bridges, trestles, culverts, overpasses and viaducts	357,639	161,209	518,848	405,939	167,887	573,826
Tunnels and subways	108,646	8,424	117,070	114,442	9,529	123,971
Incinerators	—	—	—	—	—	—
Park systems, landscaping, sodding, etc.	—	—	—	—	—	—
Swimming pools, tennis courts and outdoor recreation facilities	554,749	65,326	620,075	586,093	69,094	655,187
Mine shafts and other below surface workings	1,191,665	8,669	1,200,334	1,278,476	9,859	1,288,335
Fences, snowsheds, signs and guard rails	73,909	25,418	99,327	76,098	26,788	102,886
Other engineering construction	448,382	160,275	608,657	520,639	167,633	688,272
Sub-total, other engineering construction	2,734,990	429,321	3,164,311	2,981,687	450,790	3,432,477
Total engineering construction	19,501,205	4,126,769	23,627,974	22,701,684	4,300,738	27,002,422

¹ Preliminary actual expenditures, 1987; intentions, 1988.

7.24 Machinery and equipment price indexes, 1983-87 (1971 = 100)

Division	1983	1984	1985	1986	1987
Agriculture	263.0	270.7	276.8	290.1	295.9
Forestry	286.8	303.0	318.3	327.0	325.9
Fishing	296.8	313.7	320.9	329.8	330.4
Mines, quarries and oil wells	321.7	337.1	353.9	362.7	357.8
Manufacturing	298.0	312.9	331.2	344.0	342.8
Construction	260.8	275.4	290.6	298.2	294.8
Transportation, communications, storage and utilities	262.7	275.3	288.9	299.1	300.2
Trade	243.1	255.8	269.9	283.9	283.4
Finance, insurance and real estate	214.7	224.4	235.5	246.1	246.7
Community, business and personal services	205.9	215.3	227.9	241.0	241.9
Public administration	254.7	269.6	285.9	299.8	298.6
Total	270.1	283.0	297.6	309.4	309.4

Sources

7.1, 7.2 Canada Mortgage and Housing Corporation.

7.3, 7.5 - 7.7, 7.9, 7.10 Housing, Family and Social Statistics Division, Statistics Canada.

7.8 Household Surveys Division, Statistics Canada.

7.4, 7.11 - 7.13, 7.24 Prices Division, Statistics Canada.

7.14 - 7.23 Science, Technology and Capital Stock Division, Statistics Canada.

CHAPTER 8

FORESTS, FISH AND FURS

CHAPTER 8

FORESTS, FISH AND FURS

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MARKET VALUE OF FISHERY PRODUCTS

In the early 1980s, the fishing industry experienced a severe cost-price squeeze as a result of a weak Canadian economy, higher fuel costs, lower consumer demand and stiffer competition in major export markets. A reverse in this trend began in 1984, and in the last two years, there has been a dramatic increase in the market value of all fishery products due to increased catches, higher-quality fish and greater demand for Canadian products abroad. Between 1985 and 1986 the value of all fishery products increased from \$2,475.7 million to \$2,983.1 million.

CHAPTER 8

FORESTS, FISH AND FURS

Forests, fish and fur-bearing animals were sources of shelter, food and clothing from the time of earliest habitation in what is now Canada. Development of these resources and the industries resulting from their use have played a continuing role in Canada's growth.

Canada is the world's leading exporter of forest products. In 1986, Canada's exports of forest products, valued at almost \$18.0 billion, accounted for 21% of the world total.

Canada maintained its status in 1987 as the world's leading exporter of fish products in terms of value for the tenth consecutive year. Preliminary statistics indicate that in 1987 Canada sent abroad \$2.77 billion worth of fishery products, up 14% from the previous year. Approximately 60% went to the United States, followed by Japan and the European Economic Community. On the volume scale, Canada exported almost three quarters of its production or 587 824 tonnes (preliminary figures). The most popular export items were cod, herring, crab, lobster and scallop from the Atlantic Coast, and halibut and salmon from the Pacific Coast.

In the fur industry, Canada's exports of raw furs in 1986-87 amounted to \$169.1 million, up from \$97.1 million in 1985-86 and up from \$101.7 million in 1984-85.

8.1 Forestry

The forest land of Canada supports largely coniferous forests and makes up 49% of the country's total land area. Of this forest land area, a little less than 3% is reserved: this includes parks and other reserves where, by law, the forest is not available for harvesting. In 1986, 177 million m³ of wood were cut. Timber harvesting and processing generated work for more than 277,300 persons with \$8.2 billion in salaries and wages. The value added by processing beyond the raw materials stage amounted to \$14.4 billion.

British Columbia, Ontario and Quebec are the leading timber-producing provinces. In 1987, British Columbia sawmills produced 60% of all

lumber in Canada and most of softwood plywood. Ontario and Quebec produced most of the wood pulp.

Forests are a vital part of the Canadian environment and are integral components of many essential ecological processes. These include hydrologic and atmospheric cycles, climatic amelioration, and nutrient and soil conservation. They provide habitat for a large number of animal and plant species, many of which have important economic and recreational values. The forest environment provides many other recreational opportunities, and plays a significant role in Canada's important tourism industry.

8.1.1 Forest resources

Canada's forests cover a vast area in the north temperate zone, and wide variations in physiography, soil and climate cause marked differences. Hence, eight fairly well-defined forest regions can be recognized. By far the largest is the Boreal region which represents 82% of total forested area. The Great Lakes-St. Lawrence region covers 6.5% and the Subalpine region, 3.7%. The Montane, Coast and Acadian regions each account for approximately 2%, while the remaining Columbia and Deciduous regions each represent less than 1%.

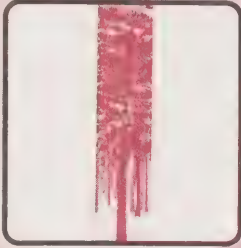
Inventories of Canadian forest resources are made periodically by provincial forest authorities and, with their co-operation, the lead federal forestry agency, Forestry Canada, compiles national statistics. The latest such statistics are for 1986.

The 1986 national forest inventory reported on an area of 3.98 million km² of inventoried forest land (see Table 8.1). Provincial Crown forest land constitutes 80% of the inventoried productive forest land of Canada, leaving 11% under federal jurisdiction and 9% in private ownership. Private ownerships are made up of small private woodlots and larger industrial free-hold parcels. Private lands are still an important source of timber production, as well as providing many opportunities for recreation and habitat.

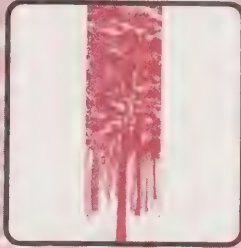
Chart 8.1
Canada's forest inventory, 1986 (thousand km²)

Canada, total : 3 979

Prince Edward Island
3



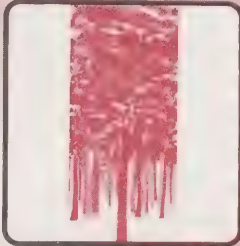
Nova Scotia
40



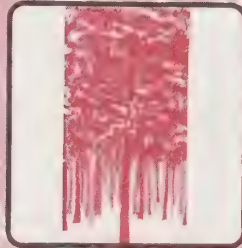
New Brunswick
63



Newfoundland
225



Saskatchewan
237



Manitoba
251



Yukon
274



Alberta
378



Ontario
466



British Columbia
603



Northwest Territories
614



Quebec
825



The estimates of wood volume, given in Table 8.1, are also subject to continued revision as more accurate and complete inventories are compiled. The 1986 national forest inventory is more standardized across the country than in the past and is derived from provincial forest inventories. The 1986 volume estimates encompass only inventoried areas, and estimates of wood volume are based only on productive forest land. The estimates, therefore, are low because 12% of the forest lands were not yet inventoried at that time but are representative of commercially accessible timber supplies.

8.1.2 Forest depletion

The average annual forest utilization by cutting is shown in Table 8.2. The primary sources of Canada's current wood production are the inventoried, non-reserved, productive forest lands that are south of 60°N latitude. These lands constitute 212 million hectares or nearly 87% of productive forest lands in Canada. It is estimated that the annual allowable cut is 225 million m³. From 1982 to 1985, the annual average of wood volume harvested amounted to about 159 million m³. In addition to cutting, extensive forest depletion is caused by fire (see Table 8.3) and insects and diseases (see Table 8.4). Preliminary estimates of these losses average between 150 to 220 million m³ annually. This gives a total yearly depletion of around 300 to 350 million m³. Although this is still within the estimated mean annual growth of the forests, localized shortages are becoming evident. Coupled with this, the demand for forest products is expected to increase in the long run.

In order to be able to participate in expanding markets for forest products, forest growth, particularly in accessible areas, must be increased accordingly. In 1980, the Canadian Council of Resource and Environment Ministers endorsed a timber supply target of 210 million m³ annually by the year 2000. This represents approximately a 32% increase above the 1982-86 average harvest. This increase will be possible through a concerted nationwide forest renewal and management program which is supported by forest development agreements between the provinces and the federal government, totalling \$1.1 billion. Under the terms of the agreements, planting of cutovers is to be significantly increased, and areas receiving silvicultural treatments are to increase dramatically.

8.1.3 Forest administration, protection and regeneration

South of 60° latitude the provinces own 90% of the forests in the form of provincial Crown land.

The rest is reserved for special purposes such as national parks or are private holdings. The Constitution Act, 1867 specifies that the provinces have direct responsibility for management of their public lands and the timber and wood on them. The federal government owns or administers about 95 million hectares, but most of this land is in the Yukon and Northwest Territories and is largely unsuitable for commercial timber production. Federal ownership in the provinces is only about 5.2 million hectares and mostly in national parks and military reserves and Indian lands which account for 2.6 million hectares. The federal government has major or shared jurisdiction over many policies and activities related to forest resources, fiscal management, regional development, trade and tariffs, transportation and environment. At least six federal departments have a major interest in forestry.

Federal. The principal federal forestry agency, Forestry Canada, provides national leadership through the development, co-ordination and implementation of federal policies and programs to enhance long-term economic, social and environmental benefits to Canadians, from the forest sector.

Forestry Canada undertakes research and development initiatives in the forest sector and encourages the transfer of technology from research to the provinces and industry. Its challenges and concerns are wide-ranging, and include cost-effective forest management and protection methods; chemical and biological pest control strategies; pesticide application technology; environmental impact of forestry practices; tree genetics; the use of biotechnology to improve growth and yields; and research on forest ecology. Research includes the use of sophisticated satellite technology to maintain a comprehensive national forest inventory and applications of high technology to improve methods of forecasting, detecting and suppressing forest fires.

In addition to conducting extensive forestry research, Forestry Canada administers co-operative research programs with the provinces and industry; gives financial support for forestry research and provides technical advice, scientific information and specialized services to federal departments and agencies, the provinces and the forest sector.

Forestry Canada is responsible for the formulation and co-ordination of federal forest policy. It also provides detailed statistics and economic information to forestry user groups, encouragement of new investments in the forest resource and Canadian forest products exports, as well as

an extensive program of grants and contributions to universities and forestry organizations which totalled over \$19.3 million in 1985-86.

Forestry Canada has negotiated forest resource development agreements worth more than \$1 billion with the provinces to encourage forestry renewal on private and public lands; to ensure long-term timber supplies; and to foster regional economic development. Depending on specific provincial needs, these agreements may provide for reforestation, intensive forest management, silviculture, access roads, inventory and planning, industrial development, private or group ventures, research, technology transfer, training, administration and public information. Forestry Canada also provides forestry advice for the management of federal lands and directly manages forest lands on several Department of National Defence properties and pursues policies and programs which stimulate employment in the forest sector.

Provincial. All forest land within the provinces, with the exception of private land, national parks, federal forest experiment stations, military areas and Indian reserves (except in Newfoundland), is administered by the respective provincial governments.

The provincial forest services have traditionally concentrated on the management, protection and utilization of the forest resources.

Tenure system and timber allocation. The tenure arrangements, in force in the provinces, are generally intended to satisfy goals of providing a means of allocating public timber in order to maximize returns from the resource to the residents and the provinces, to ensure maximum utilization of the timber resource and to facilitate effective forest management. The bulk of cutting rights to provincial Crown timber remains held in the form of long-term arrangements, which have been or are evolving in almost all provinces in the direction of increasing the responsibility of industry for managing the forest lands for which they hold licences, generally in return for some form of compensation. In provinces where there is a large degree of private ownership of forest land, forest policy is to provide incentives for greater utilization of timber from those lands. Some provinces are also requiring forest companies holding long-term licences, involving large forest areas of volumes of timber, to make timber surplus to their needs available to smaller firms. Otherwise, smaller timber cutting rights are allocated by quota privileges or through competitive bidding. In 1988, British Columbia doubled the volume sold on a competition basis from 5.2 million m³ to 10.5 million m³ in the Small Business Forest Enterprise

Program. Timber resources are fully allocated in most provinces. Fees for holding cutting rights and timber harvested are generally set administratively or through negotiation. Stumpage rates vary by location, species, and product category, and are normally adjusted regularly to reflect prevailing market conditions.

Forest protection. The reduction of losses of timber and other forest values due to forest fires, insect infestations and disease epidemics continues to be a major undertaking of the provincial forestry agencies. Losses vary regionally but all jurisdictions are striving to enhance their capability to detect, control or suppress insects, diseases and fires. In addition, the significant increase in reforestation investments have to be protected from competition by weeds and brush.

Provincial governments have stepped up public awareness campaigns in an effort to lessen the number of human-caused forest fires. As lightning remains the primary cause of forest fires, automated lightning detection networks have been or are being installed by several provincial forestry agencies. Used in connection with other elements of fire detection networks (including aerial and ground patrols, lookout towers and improved heat detection equipment), detection capability is being expanded in several provinces. A national training group has been formed to standardize training to make inter-agency firefighting assistance among jurisdictions more effective. Most provinces participate in the Canadian inter-agency forest fire centre at Winnipeg which coordinates the sharing of personnel and equipment between provinces and territories when they need support to handle an extreme fire situation.

Several provinces have highly developed programs for fire detection and fire fighting. In Newfoundland two new CL 215s were added to the water bomber fleet, in 1988, giving the province a total compliment of four CL 215s and four Canso water bombers. A helitak unit consisting of a medium-size helicopter and support staff is located in central Newfoundland.

Nova Scotia, has 35 observation towers and an aerial patrol service with five helicopters and two fixed-wing aircraft.

Quebec has developed a new system for fighting forest fires. This system relies on computers, satellites and patrol aircraft, as well as data from weather stations, radar and lightning detectors. The Maniwaki Technology Transfer Centre, established in 1986, ensures the uniform and orderly application of these technologies throughout the province. A fleet of 21 water bombers supports the ground crew of firefighters.

In Ontario, fires are detected by aerial patrols using contracted aircraft, in conjunction with a lightning locator system and by public reports. To assist in fighting fires, water bombers and helicopters are utilized and fire crews employed as required. A communications system includes a network of radios, telex and facsimile. A network of 125 primary weather stations supplies information to determine fire weather indexes and aids in detection patrol planning.

In Manitoba, the major source of loss in forest volume, for which statistics are available, is wild-fire. Fire detection and fire fighting are provided by a network of lookout towers, an aircraft detection system, and ground patrols. Public education in fire prevention is carried out through radio, television, newspapers, pamphlets, signs, films and tours.

Saskatchewan uses a network of lookout towers, an intensive lightning detection system, and aircraft patrols for forest fire detection during the dry season. During periods of extreme fire hazards, additional detection aircraft are utilized. Helicopters and fixed-wing aircraft capable of water-dropping provide aerial support. There are also land-based aircraft which drop long-term fire retardants and skimmer-type water bombers.

Alberta has a fire detection system consisting of 143 lookout towers, supplemented by aircraft patrols. It also operates an automatic lightning detection system and has integrated this system with direction finders in British Columbia and the Northwest Territories. Alberta's fire-fighting force consists of crews equipped with helicopters, land-based airtankers and amphibious airtankers. The airtanker fleet operates from 15 bases, all equipped with long-term fire retardants. Support is available from approximately 5,000 trained firefighters.

British Columbia maintains a network of 24 lightning location detectors covering the entire province. Five of these sites are shared with Alberta and the Yukon. A network of over 350 weather stations is also in the process of being fully automated. This will make weather observations and fire weather indexes available on a continuous basis to wildfire control personnel at 43 districts and six regional offices, as well as several outside agencies, through colour graphics terminals connected to a main host computer. Information on lightning strike location, fire weather, fire behaviour, and fire occurrence prediction, among others, is presented in both text and colour graphics forms. British Columbia's fire detection program also includes lookouts and air patrols. Fire-fighting forces, in addition to the normal

ground crews, also include specialized forces such as crews capable of descending to inaccessible terrain from a hovering helicopter, specially trained mobile teams, helicopters equipped with water tanks (helitankers), airtanker fleets and airtanker bases.

Budworms remain the most damaging forest insect pest in Central and Eastern Canada. While not as severe as in 1980 when 1 380 000 ha (hectares) of the forested area of Nova Scotia were defoliated by spruce budworm, many areas continue to be attacked. In 1985, 345 200 ha were defoliated by the budworm.

Forest spray operations against spruce budworm have been conducted in New Brunswick since 1952, every year except 1959. As in the other regions of eastern North America, infestation by spruce budworm has decreased in the province. In 1983, moderate and severe defoliation was detected over 2.0 million hectares. In 1988, only 0.5 million ha of infestation were detected. Although chemical insecticides have been used perennially, almost exclusively, in control operations, the use of biological insecticide *Bacillus thuringiensis* (B.t.) has increased over the past five years. In 1988, almost half of the 450 000 ha sprayed in New Brunswick were treated with B.t.

In Quebec, the amount of forest land infested by spruce budworm has also decreased significantly since 1981. In 1988, 700 000 ha were infested, compared with almost 13 million hectares at the peak of the infestation. Some spraying programs and research are continuing to combat this problem.

In Newfoundland, the major coniferous defoliator, since 1984, has been the hemlock looper. Aerial spraying to control this insect pest was confined to the northwest portion of the province in 1988. Under a joint provincial/industry arrangement, approximately 77 000 ha of forest land were sprayed. Approximately 75% of the area was sprayed with the chemical fenitronthion; the remaining 25% being sprayed with B.t. In addition to the operational spray program, the province and the industry continued their sponsorship of insecticide experiments, carried out by Forestry Canada. These experiments were designed to look at less toxic alternatives to fenitronthion such as B.t. and Dimilin; a continuation of an experiment commenced in 1985 which is anticipated to yield valuable results in determining the specific "spray window" as well as the minimum dosage required to achieve reasonable control with biological and low toxicity chemicals.

Three insects represent the greatest threat to Ontario's forest resource: the gypsy moth, the

jackpine budworm, and the spruce budworm. In 1986, Ontario undertook its largest protection spray operation against forest insect pests. About 3% of a 16 million hectare infestation area was targeted for protection action, which involved both aerial spraying and salvage cutting. In 1987, the infestation was expected to drop to 10 million hectares because of natural cycles, climatic factors and successful protection programs.

Pest management is an important aspect of British Columbia's forest management program. Forest pests, including insects and diseases, destroy timber and reduce the growth of forests by an estimated 31 million m³ annually which is equivalent to about one-third of the wood harvested in the province each year. About 11 million m³ of the 31 million m³ destroyed may be saved by applying practical protection techniques. Management programs to control mountain pine bark beetles were implemented in the mid-1970s and greatly expanded in 1984. The pine beetle infestation which began in the 1970s, reached a maximum infested area of over 400 000 ha in 1984. Control of the defoliators such as the western spruce budworm, Douglas-fir tussock moth and gypsy moth is an important aspect of forest protection. An extensive gypsy moth control program using the bacterial spray, B.t. has been successful in preventing the spread of this pest. There has been limited use of the bacterial spray on the spruce budworm and Douglas-fir tussock moth.

Regeneration. The provinces have taken measures to increase the area of denuded forest land that is reforested. In addition, dependence on natural regeneration alone continues to diminish. Left to nature, approximately one-third of cutover forest land fails to regenerate adequately in terms of desired tree species and stocking. Furthermore, present logging methods, such as clear-cutting, have reduced the area on which natural regeneration can be relied upon.

All provinces have increased the funding available for reforestation from their resources and through federal-provincial cost-shared agreements, and involved the forest industry in the planning and conduct of much of the reforestation on Crown land. Typically the provinces have assumed responsibility for the provision of nursery stock and reforestation of burned areas and of the backlog of lands that remain insufficiently stocked with tree cover. However, some provinces have encouraged the establishment of private nurseries and seed orchards rather than expanding provincial capacity.

Recently, the emphasis has turned from increasing the size of reforestation programs to

ensuring that these investments are cost effective. To this end, many provinces have increased the use of containerized seedling stocks, instituted quality control measures for nursery stock production and tree planting, developed and adopted treatments appropriate for various site types, and initiated the development of genetically improved planting stock.

To improve forest productivity, tree improvement is being pursued by all provincial governments. The provinces with the largest planting programs carry out both research and applied tree improvement programs. The other provinces are primarily engaged in applied tree improvement and rely on Forestry Canada and universities for research information and guidance. Co-operative tree improvement councils have been formed between industry and government in several provinces. As a result, seed collection areas and seed orchards have been established throughout Canada to facilitate the production and collection of superior tree seed for the production of planting stock. Stand improvement projects, including thinning, spacing, cleaning and pruning, are increasingly being undertaken.

In Newfoundland, during the three-year period, 1986-88, following the signing of the Resource Development Agreement, silviculture programs totalled 31 000 ha, including 9 000 ha of plantation and 13 000 ha of pre-commercial thinning.

Prince Edward Island has begun a long-term, comprehensive forest renewal program, directed at private woodlots which make up 90% of the productive forest. In addition to the planting target of 2.0 million seedlings per year, forest renewal activities include plantation maintenance, thinning of natural stands, reclamation of non-productive sites, and the establishment of access roads, bridges and boundary lines.

In Nova Scotia, the reforestation program has tripled since 1980 with almost 26 million trees planted in 1987. Small private woodlots represent nearly 50% of Nova Scotia's productive woodlands, where silviculture programs have more than tripled, from 5 400 ha in 1980 to 18 000 ha in 1987.

Under a large-scale silviculture program in New Brunswick, a total of 29 million seedlings were planted on Crown lands in 1981. This level was to be maintained for several years.

Quebec is involved in natural forest regeneration projects and programs. A reforestation program which began in 1988 will provide for the planting of 300 million seedlings per year in a joint provincial and private enterprise operation. In addition, a network of plantations is being

established to fill Quebec's needs for improved seed; research is continuing, particularly on the genetic improvement of softwoods and hardwoods and on the maintenance of plantations.

In Ontario, 10 nurseries, operated by the Ministry of Natural Resources, produced about 70 million bare root seedlings and 9 million container seedlings in 1986. Private contractors, hired by the Ministry, produced about 70 million container seedlings.

In Manitoba, a tree improvement program ensures seedlings are of the highest quality. About 12 million seedlings are planted annually in reforestation of Crown lands. Forest improvement by thinning, cleaning and chemical spraying removes undesirable species and encourages growth of preferred trees.

The Alberta government has allocated \$6.2 million per year, under a public lands development program, to clean and tend, and help secure forest regeneration in the province. An effort is also under way to improve the quality of regenerated forests in Alberta. Test plantations of white spruce seedlings have been established, using optimum conditions on a range of different site types, and monitoring is producing interesting results. Alberta is evaluating the cost effective expansion of the productive forest land base, through drainage of existing under-productive peatland forest. This has become necessary because of withdrawals from the productive forest land base for other uses, including oil and gas, and agriculture.

Saskatchewan's four forest nurseries produce about 12 million seedlings a year for government and industry planting projects on forest land. The forest nurseries have three new facilities — two major pumphouses and one seedling processing/storage building.

Silviculture program spending in British Columbia amounts to nearly 50% of the provincial government's total forestry budget. The annual rate of reforestation is nearing 240 million seedlings. The new goal is to restock 75% of forest lands cleared annually, leaving 25% for natural regeneration.

8.1.4 Overview of the forest industries

Canada's forest area, estimated at about 436 million hectares, provides the basis for an extensive forest products industry. The industry includes establishments engaged in the harvesting and further processing of wood and plays a major role in Canada's economic activity. Related employment in 1986 exceeded 277,000 persons and accounted for about 12% of the total employment in the goods-producing industries. Total

shipments exceeded \$38 billion and the net foreign trade surplus, at \$15.7 billion, contributed significantly to Canada's positive merchandise trade balance in 1986.

The 1980 Standard Industrial Classification (SIC) divides the industry into three broad sectors: logging; lumber and wood products; and pulp and paper products.

Logging. Canada's forests include a wide variety of species, ranging from mixed hardwoods and conifers in the East to predominately coniferous forests in the West. In total, softwoods account for about 92% of the annual cut, with spruce the most important species.

Although logging activity is found in all parts of Canada, operations are concentrated in British Columbia, Quebec and Ontario. British Columbia occupies the dominant position, accounting for about 45% of the annual production of the logging industry.

Table 8.5 shows the volume of wood cut during the 1981-86 period. Output in 1986 exceeded 177 million m³, an increase of 5% over 1985 and 22% over 1981.

The overall cyclical trends that affected the Canadian economy during the 1980s are evident in the logging industry. Production began to decline in 1981 and reached a low point of 127 million m³ in 1982. Commencing in 1983, the industry entered a period of continuous growth and by 1986 production was 39% above the 1982 level.

Similar trends occurred in the employment data — a high point in 1981, followed by a sharp decline in 1982, with a new cycle commencing in 1983. Changes in employment in the post-1982 period have been smaller than the changes in output, reflecting improvements in operating procedures.

Wood and paper industries. This group includes those industries engaged in the production of a full range of products, from basic lumber, plywood and paper to completely manufactured goods such as pre-fabricated buildings and kitchen cabinets.

Table 8.6 shows the structure of the group and, based on Census value added, its contribution to Canadian manufacturing activity.

Differences in tree types, geography and climate have influenced the development of the industry. Sawmill activity is concentrated in British Columbia while pulp and paper activity is concentrated in Quebec. Ontario ranks third in both sawmill and pulp and paper activity (Table 8.7).

The overall trends established by the group in the 1980s resemble those for the entire manufacturing sector — relatively high levels of output in 1981, a sharp decline in 1982, and a recovery cycle in the post-1982 period.

Chart 8.2

**Wood and paper industry
(manufacturing activity)**

Billion dollars

10 —

8 —

6 —

4 —

2 —

0

1981

1982

1983

1984

1985

1986

Paper

Wood

Although the output of the group includes many products, it is dominated by lumber, newsprint and pulp. These three together accounted for one-half the total shipments value of \$32.5 billion in 1986. Canada has a leading position among the producing nations. In 1986, Canada ranked first in the production of newsprint, second in the production of pulp and third in lumber production.

A significant portion of Canada's production of wood and paper products is exported. Total shipments of lumber, pulp and newsprint exceeded \$16 billion in 1986; exports of these commodities were over \$14 billion. Newsprint is highly export-oriented. Total production in 1986 was 8.9 million tonnes; about 88% of this amount was exported.

Although Canadian producers ship to virtually all parts of the world, the United States continues to be the most important market. Total exports of all wood-based products exceeded \$17 billion in 1986, with about \$13 billion exported to the United States.

8.2 Fisheries

After Canada extended its fishing zones to 200 nautical miles in January 1977, bilateral agreements were concluded with other countries pro-

viding for the continuation of their fisheries limited to stocks surplus to Canada's harvesting capacity. Negotiations were also undertaken to revise multi-lateral agreements which had applied previously. A new international organization, the Northwest Atlantic Fisheries Organization (NAFO) was established to regulate fishing outside Canada's 200-mile limit; recognition of Canada's special interest in the area beyond and immediately adjacent to the 200-mile limit is provided in the NAFO convention. Canada also co-operates with other countries to conserve high seas fisheries resources in other areas, through research and international agreements. Initiatives have included a new emphasis on improving access to foreign markets to realize the full potential arising from the conservation and rational management of fish stocks.

8.2.1 Federal government activities

The federal government has full legislative jurisdiction over the coastal and inland fisheries of Canada. All laws for the protection, conservation and development of these fisheries resources are enacted by Parliament. Management of fisheries is conducted co-operatively with the provincial governments; some of them have been delegated certain administrative responsibilities.

The federal Department of Fisheries and Oceans controls marine and freshwater fisheries in Newfoundland, Prince Edward Island, Nova Scotia, New Brunswick, the Yukon and Northwest Territories. The federal government inspects fish and fishery products produced for sale outside provincial boundaries throughout Canada. In the national parks, fisheries are managed by the Canadian Wildlife Service.

The Department of Fisheries and Oceans conserves, develops and generally regulates the nation's coastal and freshwater fisheries through a broad range of responsibilities: management of Canada's ocean and some inland fisheries; fisheries and oceanographic research contributing to optimum use of renewable aquatic resources and marine and freshwaters; hydrographic surveying and charting of navigable coastal and inland waters; administration of small craft harbours; environmental impact studies affecting coastal and inland waters; and research in support of international agreements relating to fisheries management and marine environmental quality.

Regional headquarters for fisheries management and ocean science and surveys are in Vancouver, Winnipeg, Quebec City, Moncton, Halifax and St. John's. There are research institutes and laboratories at centres across Canada, notably at Patricia Bay, BC, Burlington, Ont., Mont-Joli, Que. and Dartmouth, NS.

Close contact with fishermen, the fishing industry and provincial authorities is maintained through the regional offices. Co-ordination and discussion between federal and provincial fisheries managers are facilitated through federal-provincial committees.

The Fisheries Prices Support Board, the Canadian Saltfish Corporation and the Freshwater Fish Marketing Corporation work closely with the department.

International fisheries. Many injurious effects on aquatic resources are results of historical practice, insufficient knowledge, multiple uses of water, social and economic conditions, and national and international competition. Problems under national control are corrected as conditions warrant but many resources shared with other nations must be managed jointly.

Canada co-operates with many nations to obtain scientific data and formulate policies for developing and conserving fisheries through membership in 10 international fisheries commissions and an international council. These international organizations are set up under formal conventions. Canadian representatives appointed by order-in-council include officials of the

Department of Fisheries and Oceans and members of the fishing industry.

Canada is a member of the fisheries committee of the Food and Agriculture Organization of the United Nations and of the Codex Alimentarius Commission, concerned with world food quality standards.

Acid rain has become a matter of increasing interest and debate. Numerous studies have demonstrated that acid rain is adversely affecting many lakes and rivers. There are growing indications that it may be harming crops and forests as well. A number of strategies have been proposed. The cost and desirability of control is being debated in the United States and Canada, raising questions about the causes, effects and controllability of acid rain.

Broad dispersion of acid rain over large parts of Europe and North America represents a major man-made disturbance of the environment. Acid rain has led to severe degradation of many aquatic ecosystems in the United States, Canada, the United Kingdom, and Scandinavia. Many thousands of lakes have been affected. Waters and soils over extensive areas of North America are susceptible to acidification. There has been an increase in both acidity and toxic substances in many lakes and rivers over the past several decades, particularly in New England and south-eastern Canada.

Conditions that lead to the formation and long-range transport of acid rain are reasonably well known. Emissions of sulphur dioxide and of oxides of nitrogen are transformed in the atmosphere to sulphuric and nitric acids, transported great distances, and deposited on vegetation, soils and surface waters. In the United States and Canada the sources of acid rain are entirely man-made. There is much circumstantial evidence relating power plant emissions to acid rain.

Acid rain has destroyed many species of fish and their prey. It has also caused toxic trace metals to reach concentrations in surface and ground waters that are undesirable for human consumption. Fish taken from acid waters show high concentrations of mercury and other heavy metals. Only the control of emissions can significantly reduce the rate of deterioration of sensitive freshwater ecosystems.

8.2.2 Provincial activities

In the early 1980s, the fishing industry experienced a severe cost-price squeeze as a result of a weak Canadian economy, higher fuel costs, lower consumer demand and stiffer competition in the major

export markets. However, in 1984, the industry started to experience an upswing and, in the last two years, there has been a dramatic improvement due to increased catches, higher-quality fish and improved demand for Canadian products abroad.

Commercial fish landings in 1986 reached 1.3 million tonnes, 11% lower than in 1985.

Although Newfoundland was the province with the highest number of fishermen in 1985, just over 26,600, it had only the third highest landed value of fish at about \$167.5 million. British Columbia was second in the number of fishermen, 18,168, but ranked first in the landed value of fish at \$377.6 million. Although Nova Scotia had only 13,978 fishermen, it produced the second highest landed value of fish at \$321.3 million.

Newfoundland had the highest number of workers in fish processing plants with 9,134 employees in 1985; Nova Scotia was second with 6,412 workers.

The commercial fishery in Prince Edward Island provides employment for more than 6,000 fishermen and processing plant employees, accounting for almost 10% of the provincial work force. In 1987, the landed value of fish reached over \$72 million and it is estimated that the total contribution by the fishery, to the provincial economy, reached \$180 million when processing and service industries were taken into consideration. Exports of fishery products have accounted for up to 40% of Prince Edward Island's international exports. The most important species of the province's fishery is lobster, with record landings in recent years. The lobster catch accounted for 68% of the landed value in 1987. Groundfish, pelagic species and shellfish such as snow crab, oysters, quahaugs, scallops and mussels make up other important components of the fishery. Programs have been introduced by Prince Edward Island's Department of Fisheries to encourage value added production of seafood and to enhance quality production of groundfish and other species.

Fishermen and processors in Nova Scotia established a record value of earnings from the fishing industry in 1987 with landings valued at \$524 million, resulting in almost \$1 billion of marketed product. Lobster placed first as the most valuable species at \$160.3 million, followed by cod and scallops. Nearly 16,000 fishermen worked in the harvesting sector and over 9,000 persons were employed in the 378 licensed processing plants in 1987. About 85% of Nova Scotia fish products were exported and accounted for more than one-third of total exports from the province. Provincial activities are focused on aquaculture development,

quality enhancement, skills upgrading and on improving the recreational inland fishery.

In New Brunswick, the volume and value of landings increased by 3.9%, and 18.1% respectively, in 1987. The volume totalled close to 147 000 t, and represented a value of \$115.8 million. The number of fishermen rose to 7,934 in 1987, 185 more than in 1986. Crustaceans ranked first in value at \$70.8 million, or 61.2% of the total landed value, although the tonnage decreased by 24.8%. Of the total value, lobster accounted for 36.4% and crab, 20.2%.

Quebec's inshore and deep-sea fisheries provide seasonal employment for approximately 7,000 commercial fishermen and 4,000 workers. Production centres and landing points of these fisheries have been modernized with essential unloading and storage facilities. Inland sport and commercial fishing are being improved by fish culture programs. Many species are being reared for the restocking of lakes and rivers.

Ontario conducts studies on the improvement of stocking strategies in terms of species, size, rate and time of year to increase the survival of fish and returns to the angler. Research programs are directed toward specific fisheries management problems in the Great Lakes and smaller inland waters. Quantities of hatchery-reared coho and chinook salmon are released each year into the western basin of Lake Ontario. This provides good fishing during the late summer and fall.

Manitoba's fisheries generate more than \$200 million to the provincial economy each year. Fisheries provide recreational opportunities through sport fishing; help support the tourist industry; and represent an important source of income and a way of life for nearly 2,500 commercial fishermen and 1,500 employees. Less well documented, but in some locations more important, is the subsistence fishery which is traditionally important and provides a source income. In 1987, Manitoba's commercial fish landings amounted to 12 487 t valued at \$24.4 million. Sport fishing is also important in Manitoba. Approximately 240,000 anglers spent a total of \$217.7 million on goods and services in 1985, of which \$159.3 million or 73% was directly attributable to sport fishing.

The inland provinces especially make use of hatcheries to restock the lakes and rivers.

In Saskatchewan, a portion of angling licence revenue is allocated to a special fund for fishery projects including rearing ponds, fishways and lake rehabilitation.

In British Columbia, the annual stocking of lakes is a major function of the six provincial hatcheries. In 1988, 954 lakes and streams were stocked

with 1.1 billion rainbow, cutthroat, steelhead, brook trout and kokanee.

British Columbia conducts research on shellfish, principally oysters, on salmonids and on marine plants.

There is a close liaison between the provincial departments responsible for fisheries and the federal Department of Fisheries and Oceans. In Ontario, fisheries are managed by the provincial government. In Quebec, the provincial government administers fisheries for freshwater and diadromous species (fish that migrate between salt and freshwater), while marine fisheries are managed by the federal government. Fisheries management in Alberta is broken down into the following areas: sportfish, commercial fish, domestic fisheries, and fish culture and stocking. In British Columbia, the fisheries for marine species and anadromous salmon (salmon that migrate between the sea and freshwater) are managed by the federal department, but the provincial government manages freshwater fisheries.

Recreational fishing is gradually becoming more significant. Licences for sport fishing are usually distributed by the provincial or territorial governments which retain revenues collected.

8.3 The fur industry

The value of the 1986-87 Canadian production of raw furs amounted to \$154.8 million, with \$75.3 million (49%) from wildlife pelts and \$79.6 million (51%) from farm pelts. The value of pelts was up 54.8% from the 1985-86 level of \$100 million with increases in value of wildlife and farm fur harvests of 48.9% and 51.3%, respectively. Production was up from 1985-86 and average values were generally higher, especially for mink, fox, marten and wildcat. Average values for all bear varieties (including white bear) were above the previous year.

The Atlantic seal hunt. Harvesting seals is an important source of income in many areas along the Atlantic Coast. It involves residents of small communities, scattered along the shores of Newfoundland and Labrador, the Îles-de-la-Madeleine, the Quebec north shore and the Arctic. Its significance is greater than the relatively small dollar returns might suggest, since there are few available income-earning activities during the seal hunt period.

In 1982, the European markets for seal products collapsed as a result of seal hunt protest activity, followed in 1983 by a European Community import ban on the products of whitecoat harp seals and blueback hooded seals. The seal harvest dropped to 20,000 seals in 1984 and the

government appointed a Royal Commission to inquire and make recommendations into all aspects of seals and sealing in Canada. The Royal Commission's report was made public in December 1986.

After careful consideration of the report's findings and recommendations, the government announced a new seal policy in December 1987. The new policy prohibits the commercial taking of whitecoats and bluebacks, prohibits use of vessels over 19.81 metres in length and phases out the practice of catching seals with nets south of 53° N latitude.

The remaining hunt, which is less than one-third of the historic harvest level, is carried out primarily by land-based sealers in Newfoundland, the north shore of Quebec and the Îles-de-la-Madeleine. The seals harvested are older and are taken for meat, fur, leather and oil.

The harp seal is the main species involved. In excess of 2.5 million of these seals now inhabit the northwest Atlantic. With the reduced harvesting effort, the seal herds are believed to be increasing in size.

Fur farming. Mink are raised in all provinces. In 1987-88, the principal producers were Ontario, Nova Scotia, British Columbia and Quebec (Table 8.17).

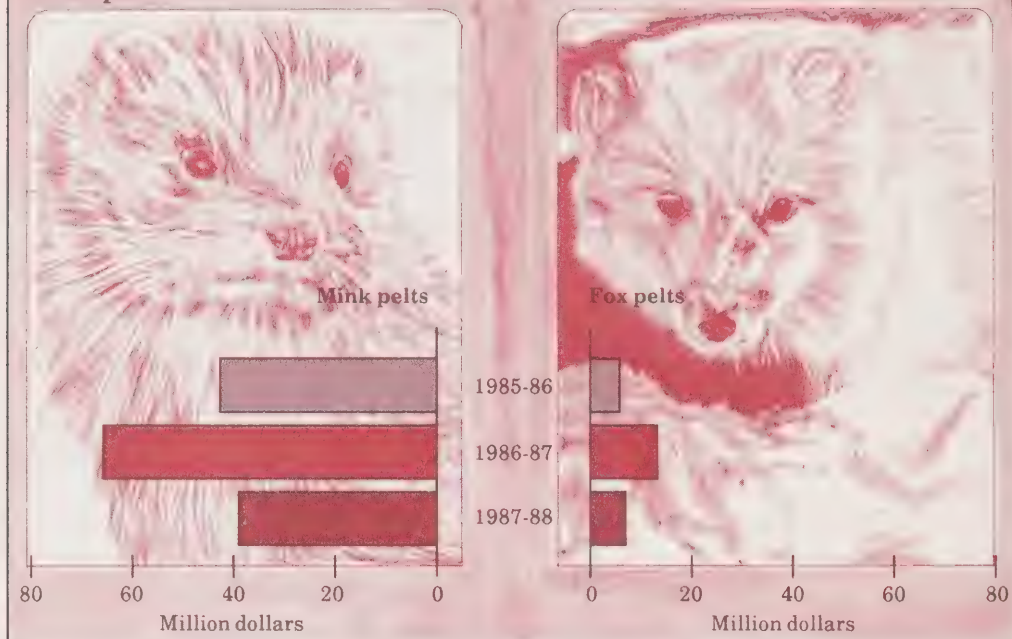
In value of production, mink is by far the most important species raised on fur farms. Mink pelt production grew from about 911,000 in 1976 to 1.2 million in 1987. The peak year was 1967 when the output was nearly 2 million pelts. Because of lower returns and higher production costs, the number of mink farms decreased from 1,359 in 1967 to 488 in 1987. Average value of mink pelts in 1987 was \$30.71, down from \$47.67 in 1986, which was the record high.

Entry into the mink business on a scale that would hold the promise of some return on investment within a reasonable time involves a high outlay of capital; this is a limiting factor in attracting newcomers to the industry.

In fox farming, pelt production increased by 3.5% to 77,217 in 1987, from 74,599 in 1986. The number of fox farms has been steadily increasing from 39 in 1971 to 1,040 in 1987. The increase in production continued a trend begun in the mid-1960s. Returns for ranched fox pelts rose sharply during the 1970s as the market for all long-haired furs improved. Value per pelt reached a high of \$364.42 in 1978 but declined to \$90.05 in 1987.

Fur marketing. In 1986-87 exports of raw furs amounted to \$169.1 million, up from the 1985-86 value of \$97.1 million and up from the 1984-85 value of \$101.5 million. Imports for 1986-87

Chart 8.3

Pelts produced on fur farms

totalled \$240.8 million, up from the total of \$179.4 million in 1985-86 and \$45.4 million more than the 1984-85 total of \$195.4 million.

The export of fur fashion garments on an important scale is a fairly new development on the Canadian fur scene. Historically, Canadian exports of furs have consisted mainly of undressed pelts from fur farms and the trapline. There are fairly definite limits to which this type of export can be developed. The production of wildlife pelts is relatively limited; it showed an increase during 1986-87 of 19.3% above 1985-86.

In the fur manufacturing industry no such limits apply. Other factors, however, are present, principally import tariffs and competition from fur manufacturers in the importing countries. A high degree of efficiency in design and manufacture is required by Canada to compete, and there is a growing export group among Canadian fur manufacturers which is extending the horizons of this formerly domestic industry.

8.4 Wildlife

Original inhabitants of what is now Canada depended on wildlife for food and clothing and some still do in remote areas. Europeans brought

development of the fur trade which to a large extent guided the course of exploration and settlement. When the country was being developed, a number of mammals and birds became seriously depleted or extinct. As settlement progressed, wildlife habitat was reduced by cutting and burning forests, cultivating of grasslands, polluting streams, by industrial and urban development, draining wetlands and building dams.

Today the arctic and alpine tundra, a major vegetational region, has begun to show serious effects of man-made changes. The adjacent sub-arctic and sub-alpine non-commercial forests have been affected principally by human travel and an increase in the number of forest fires. Forests, grasslands and wetlands have undergone major changes as a result of conversion to other uses and general degradation of environmental quality.

Canada's varied and abundant wildlife includes most of the world's stock of a number of species, such as woodland caribou, mountain sheep, wolves, grizzly bears and wolverines. Many factors cause fluctuations in wildlife numbers, such as over-harvesting, habitat loss and natural changes in the environment.

Early attempts at wildlife conservation began in 1887 when the continent's first bird sanctuary

was started at Last Mountain Lake in Saskatchewan. In 1894, when wood bison faced extinction, laws were passed to protect them and in 1907 a nucleus herd of plains bison was established at Wainwright, Alta.

As a natural resource, most wildlife falls under the jurisdictions of the provincial governments. The federal government is responsible for the protection and management of marine species and certain migratory birds. It also plays a significant role in the conservation of other wildlife of national and international importance, such as endangered species and those transboundary populations whose well-being depends on more than one province or country.

8.4.1 The Canadian Wildlife Service

The Canadian Wildlife Service (CWS) began as an agency to administer the Migratory Birds Convention Act (1917). It was expanded in 1947 to meet the need for scientific research in wildlife management and is now part of Environment Canada. The Canada Wildlife Act (1973) provides the federal government and the CWS with a legislative basis for joint federal-provincial management programs.

CWS conducts research in the Northwest Territories and Yukon on polar bear populations and is conducting long-term studies of caribou in co-operative programs with the NWT wildlife service. A co-operative program began with a number of Latin American countries to monitor and improve the wintering habitat of migratory birds.

The North American Waterfowl Management Plan, signed by the Minister of the Environment and the US Secretary of the Interior in 1986, focuses on the problem of maintaining and restoring waterfowl habitat on the continent. Four joint ventures have been developed, including one to restore 1.5 million hectares of duck breeding habitat on the Canadian Prairies at a cost of \$1 billion over the next 15 years. The cost of this project will be shared, with 75% of the funds coming from American sources. Nesting and migration habitat in the Great Lakes-St. Lawrence lowlands will also be protected at a cost of \$20 million.

CWS has an endangered species program which involves a number of activities including the establishment of the official endangered species list, and a new program, Recovery of Nationally Endangered Wildlife, which attempts to re-establish populations of endangered species. As a result of ongoing efforts, the wood bison has recently been "down-listed" to a category of less concern, and the white pelican has been removed from the

list altogether. Recovery plans have been completed and approved for whooping cranes, anatum peregrine falcons and swift foxes. The world population of whooping cranes in the wild and captivity now numbers 220, up from the 45 which existed in 1963 when the present program began. The population breeding at Wood Buffalo National Park in the Northwest Territories now stands at 132. In 1987, 25 chicks successfully migrated to Texas, a number greater than the 21 birds in the migratory flock in 1941. The convention on international trade in endangered species of wild fauna and flora was signed by Canada in July 1974, with the CWS designated the scientific and management authority for Canada. The convention, with over 90 signatory countries, protects endangered species by regulating trade in both live specimens and their parts.

As administrator of the Migratory Birds Convention Act, the CWS, in consultation with provincial wildlife agencies, recommends annual revisions of the regulations on open seasons, bag limits and hunting practices. The RCMP with CWS and provincial co-operation enforces the act and regulations.

Under a national program begun by CWS, more than 40 national wildlife areas have been set aside across Canada and more are planned. A number of co-operative wildlife areas are managed jointly with the provinces. The land, its vegetation and the wildlife it supports are the main concerns. Over 80 key nesting areas for migratory birds, many privately owned, have been declared sanctuaries under the migratory bird sanctuary regulations; in these areas, hunting is prohibited.

CWS conducts surveys of waterfowl hunters to obtain estimates of species taken and the kill of migratory game birds, of the national goose harvest, of crop damage and of waterfowl populations and habitat conditions in Western Canada. Bird-banding provides information on migration and biology of birds, and is useful in waterfowl management. CWS headquarters in Ottawa keeps continental banding records and controls activities of banders.

Research continues on the effects of toxic chemicals, including acid rain, on wildlife and the relation between chemical contamination of the lower Great Lakes and the breeding success of fish-eating birds, the last under a Canada-United States Great Lakes water quality agreement. CWS also studies toxics in species such as the herring gull, which are not threatened or harvested, but whose habits make them excellent indicators of environmental quality.

Other activities include research on the socio-economic values of wildlife, efforts to solve the humane trapping issue and public awareness programs.

8.4.2 Provincial wildlife

A major function of provincial wildlife management is to protect wildlife from endangerment or extinction and to preserve the wildlife habitat, to maintain wildlife populations at optimal levels and to foster best use of the habitat by appropriate species. Provincial authorities promote public attitudes consistent with wildlife resources and management protection strategies, and regulate the use of wildlife by setting limits and closed seasons for hunting and fishing.

Inventories are taken by the provinces, as required, to monitor the population of game and non-game species. Education programs for hunters, trappers and fishermen encourage the wise use of resources.

The main goals of wildlife conservation in Newfoundland and Labrador are: to maintain the ecosystems upon which wildlife and people depend and to do so recognizing the values of the diversity and abundance of wildlife species and populations; and to provide for the humane and sustainable use of wildlife. The major species for which there are active research or management programs include: moose, caribou, black bear, lynx, pine marten, ptarmigan, piping plover, bald eagle and peregrine falcon. Other major game species are snowshoe and Arctic hare, ruffed and spruce grouse. Major furbearers include beaver, red and Arctic fox, lynx, pine marten, mink, muskrat, ermine, otter and wolf.

In Prince Edward Island, programs and activities in wildlife management are directed at the conservation and protection of fish and wildlife species for the benefit of the public. Two five-year agreements have recently been signed by the province and Wildlife Habitat Canada; the first is resulting in the integrated management of a watershed to the benefit of fish and wildlife resources; the second is concerned with protection and enhancement of wetlands within the province. In addition, the province has recently been involved in a five-year agreement with Ducks Unlimited Canada for the development and management of wetlands. A federal/provincial agreement, effective until March 1993, is expected to strengthen co-operation in the management of the province's inland fisheries and their supporting habitats.

Emphasis in Nova Scotia is placed on maintaining the diversity of wildlife, and retaining and

improving habitat for more than 250 species. Appropriate protective measures are being integrated into forest management planning to ensure protection of significant wildlife habitats and the maintenance of the forest ecosystems. In addition, wetlands management efforts have recently been expanded.

In New Brunswick, wildlife programs are in place to manage wildlife populations (through harvest management) and habitats. Recent agreements with Wildlife Habitat Canada and Ducks Unlimited have contributed to expanded programs in wetlands and coastal habitat management — and habitat management on forested lands. Harvest management programs are in place for principal game species which include deer, moose, bear, grouse, snowshoe hare and furbearers. Recent problems with the deer population in northern New Brunswick led to a "bucks-only" regulation implemented in 1988 in two northern deer management zones. This was an interim measure as the province plans to move toward a selective harvest (antlerless permit system) program.

Objectives of wildlife management in Quebec are to maintain and improve wildlife through ecological balance and sound management of public hunting, fishing and trapping grounds. Research is carried out on the dynamics and habitats of the various species of wildlife, and citizen participation is encouraged in the conservation of wildlife and its environment. In the next few years, special attention will be given to wildlife habitat conservation.

The wildlife program, in Ontario, is being continually evolved in order to establish a well-balanced, integrated, and comprehensive program throughout the province. Active public participation in wildlife management programs is encouraged. Wildlife managers focus their efforts on three primary components of the resource: wildlife habitat; wildlife populations; and the consumptive and non-consumptive users of wildlife. The wildlife program is presently managing or participating in a trumpeter swan reintroduction program, a peregrine falcon release program, bald eagle surveys, and studies designed to facilitate effective management of the habitats of endangered, threatened and vulnerable species. In addition, wetlands throughout Southern Ontario are being evaluated and rated; significant wetlands are being acquired for special management. The fur management program is based on an area-specific licensing system for trappers, coupled with seasons determined by the primeness of pelts and quotas on the number of

animals which may be harvested. Moose and deer populations are managed by a selective harvest system which controls the number, sex and age of the animal taken. Hunter and trapper education courses must be taken by all prospective hunters and trappers. The Community Wildlife Involvement Program is a successful program designed to provide funding to groups and individuals for projects to improve wildlife habitat and recreational opportunities.

In Manitoba, wildlife management initiatives involve: wildlife population monitoring; recreational hunting; wild fur trapping; habitat protection and development; wildlife conservation education; and the conservation, preservation and reintroduction of rare and endangered species. The province administers sport hunting seasons for six species of big game, the most important being white-tailed deer, moose and elk, and seven types of upland game birds. The majority of the harvest is ruffed grouse and sharp-tailed grouse. Waterfowl hunting centers primarily on mallards, Canada geese and snow geese. Manitoba has recently reintroduced wood bison to the province and has declared the great gray owl as the provincial bird emblem.

Endangered species, receiving considerable attention, are burrowing owl, peregrine falcon and piping plover. Special attention is also being given to the relationships between forest industries and woodland caribou.

In Saskatchewan, portions of hunting and fishing licence revenues are channelled into a fund for the purchase of critical wildlife habitat and habitat development projects. Designated critical wildlife areas on Crown land are protected from alteration or sale; emphasis is placed on prevention of damage by wildlife to private property and agricultural produce; and stiffer penalties for wildlife offences such as poaching and night hunting have recently been provided.

In September 1988, Saskatchewan announced the Quill Lakes project, the first project of the North American Waterfowl Management Plan to be implemented in North America.

Wildlife in Alberta includes bird game such as pheasant, Hungarian partridge, ptarmigan and ruffed, spruce, blue, sage and sharp-tailed grouse, as well as species of big game; furbearers; and non-game which includes endangered, threatened and vulnerable species.

Due to very diversified physical features, climate, and vegetation, British Columbia has the greatest variety and abundance of wildlife of all the Canadian provinces and territories: at least 112 species of mammals, plus numerous mammal

sub-species; over 400 resident species of birds; 14 reptile species, and 20 amphibians. Major game animals in the province include the moose, elk, mountain sheep, mountain goat, caribou, three species of deer, grizzly and black bear, cougar and wolf. Furbearers such as beaver, muskrat, marten, squirrel, mink, coyote, weasel, lynx and others, yield an annual harvest, valued at \$5.8 million on the raw fur market in 1986-87. Several million ducks and geese and several species of upland game birds provide an annual harvest for bird hunters. Over a million ducks and geese winter in British Columbia. Hunting is carefully regulated to conform with the primary objective of British Columbia's wildlife management program — to maintain and enhance wildlife and wildlife habitats, and thereby ensure an abundant, diverse and self-sustaining wildlife resource.

8.4.3 Territorial wildlife

In the Yukon judicious use of big-game species, upland game birds and freshwater fish is promoted for residents and non-residents. The Yukon Fish and Wildlife Branch licenses and regulates trapping of fur-bearing animals and activities of outfitters and guides. To increase knowledge about wildlife species and provide the basis for management, it conducts and supports biological research and public educational programs.

Northwest Territories. Wildlife management in the Northwest Territories includes surveys and radio-collaring of barren-ground caribou, polar bear tagging, raptor surveys, Dall's sheep surveys and wood bison studies. The fur-bearing species are also monitored. The Department of Renewable Resources is responsible for the administration of sport fishing licences and hunting licences. Some popular fish species are lake trout, Arctic grayling, pike and Arctic char. Big game and upland game species include caribou, moose, muskox, polar bear, black bear, grizzly bear, Dall's sheep, wolf, ptarmigan and grouse. Wildlife harvested by trappers includes the beaver, Arctic and red fox, lynx, marten, mink, muskrat, wolf and wolverine. The Department of Renewable Resources provides opportunities for native peoples to follow their traditional pursuits of hunting, trapping and fishing. Included are trappers' incentive grants (a fur subsidy program based on a percentage of the season's harvest), a fur marketing service, and an outpost camp program to help groups who wish to move back to the land and live off the natural resources available through hunting and trapping.

Sources

8.1 – 8.1.4 Industry Division, Statistics Canada; Forestry Canada; provincial government departments.

8.2 – 8.2.1 Communications Directorate, Department of Fisheries and Oceans.

8.2.2 The respective provincial government departments.

8.3 Communications Directorate, Department of Fisheries and Oceans; Canadian Wildlife Service, Conservation and Protection, Department of the Environment.

8.4 – 8.4.1 Canadian Wildlife Service, Conservation and Protection, Environment Canada.

8.4.2 – 8.4.3 The respective provincial government departments.

FOR FURTHER READING

Selected publications from Statistics Canada

- Canadian Forestry Statistics, annual. 25-202
- Logging Industry, annual. 25-201
- Pulpwood and Wood Residue Statistics, monthly. 25-001
- Shipments of Solid Fuel Burning Heating Products, quarterly. 25-002
- Fish Products Industry, annual. 32-216. Discontinued, last issue 1984.
- Fur Production, annual. 23-207
- Report on Fur Farms, annual. 23-208

More information about these publications is available from Statistics Canada. See Appendix F for a complete list of Statistics Canada offices.

TABLES

.. not available

... not appropriate or not applicable

— nil or zero

-- too small to be expressed

e estimate

p preliminary

r revised

certain tables may not add due to rounding

8.1 Canada's forest inventory, 1986

Province or territory	Inventoried forest land ('000 km ²)					Volume ³ ('000 000 m ³)		
	Inventoried forest land ¹	Productive forest land ²				Softwoods	Hardwoods	Total
		Crown provincial	Crown federal	Private and others	Total			
Newfoundland	225	107	1	4	112	487	38	525
Prince Edward Island	3	--	--	3	3	16	10	26
Nova Scotia	40	10	1	27	39	150	94	244
New Brunswick	63	30	2	30	61	362	209	571
Quebec	825	480	2	66	548	3 020	1 204	4 225
Ontario	466	323	3	57	383	2 205	1 325	3 529
Manitoba	251	135	3	11	149	444	236	680
Saskatchewan	237	150	5	4	159	536	370	905
Alberta	378	227	18	10	254	1 684	972	2 656
British Columbia	603	487	5	20	511	8 180	688	8 867
Yukon	274	—	76	—	76	436	44	480
Northwest Territories	614	—	143	—	143	315	131	446
Total	3 979	1 949	257	231	2 437	17 834	5 320	23 154

¹ Land primarily intended for growing, or currently supporting, forest.

² Productive forest land available for growing and harvesting forest crops. Excludes reserved forest land by law not available, as in national parks, some provincial parks, game refuges, water conservation areas, nature preserves and military areas.

³ Merchantable volume on productive forest land.

8.2 Forest utilization, 10-year average, 1977-86

Item	Usable wood '000 m ³	Percentage of total utilization
Products utilized		
Logs and bolts ¹		
Domestic use	108 135	69.4
Exported	1 671	1.1
Pulpwood		
Domestic use	38 294	24.6
Exported	654	0.4
Fuelwood (incl. wood for charcoal)	5 460	3.5
Other products	1 633	1.0
Total utilization	155 848	100.0

¹ Includes some wood used in pulp manufacture.

8.3 Forest fire losses, 1985-87

Province or territory	1985		1986		1987	
	Fires No.	Area burned ha	Fires No.	Area burned ha	Fires No.	Area burned ha
Newfoundland	289	153 115	193	108 831	287	17 129
Prince Edward Island	52	181	95	512	52	113
Nova Scotia	583	1 077	510	883	590	560
New Brunswick	851	4 144	354	39 099	653	1 199
Quebec	880	2 697	851	167 550	992	20 936
Ontario	887	1 007	1,088	145 561	1,923	75 582
Manitoba	346	11 823	217	10 342	523	84 107
Saskatchewan	520	110 128	312	6 316	980	191 399
Alberta	939	12 920	585	2 692	1,238	36 113
British Columbia	3,604	234 647	2,194	16 927	3,477	34 541
Yukon	110	15 131	217	90 568	1,125	88 326
Northwest Territories	150	204 745	206	32 171	374	29 775
National parks	146	5 645	90	2 663	82	62
Total	9,357	757 260	6,912	624 115	11,296	579 842

8.4 Estimated average annual depletion¹, caused by insects and diseases (million cubic metres)

Cause	Depletion	Cause	Depletion
Insects		Diseases	
Spruce budworms		Dwarf mistletoes	
Mortality	34.8	Growth reduction	3.8
Growth reduction	9.7	Hypoxylon canker	
Mountain pine beetle		Mortality	11.2
Mortality	5.1	Decays	
Spruce bark beetle		Wood destruction	25.0
Mortality	3.5	Miscellaneous diseases	
Other bark beetles		Mortality	4.9
Mortality	0.3		
Aspen defoliators		Total, diseases	44.9
Growth reduction	8.0		
Miscellaneous defoliators		Total, insects and diseases	107.4
Mortality	0.3		
Growth reduction	0.8		
Total, insects	62.5		

¹ Average annual depletion, 1977-81.**8.5 Volume of wood cut, by province (thousand cubic metres)**

Province or territory	1981	1982	1983	1984	1985	1986
Newfoundland	2 568	2 379	2 429	2 889	2 509	2 408
Prince Edward Island	333	275	294	413	415	476
Nova Scotia	3 986	3 001	3 621	3 559	3 440	3 858
New Brunswick	7 795	6 320	7 442	8 378	7 896	8 719
Quebec	34 234	29 133	36 288	36 519	35 400	38 127
Ontario	22 808	19 778	23 736	28 130	28 225	30 186
Manitoba	1 803	1 498	1 520	1 698	1 717	1 704
Saskatchewan	3 555	2 526	2 612	2 726	3 016	3 530
Alberta	6 586	5 714	7 344	8 457	8 979	10 387
British Columbia	60 780	56 231	71 443	74 556	76 868	77 503
Yukon and Northwest Territories	124	161	192	177	186	200
Canada	144 572	127 016	156 921	167 502	168 651	177 098

8.6 Wood and paper industries, manufacturing activity, 1981-86 (million dollars)

Industry	1981	1982	1983	1984	1985	1986
Sawmills and shingle mills	1,882.6	1,534.9	2,509.2	2,467.7	2,863.7	3,302.5
Veneer and plywood	357.1	253.9	380.9	322.6	370.0	439.2
Sash, door and millwork	851.9	619.4	791.0	838.9	994.9	1,227.3
Wooden box	93.2	87.7	64.8	83.0	86.0	95.4
Coffin and casket	18.3	19.2	21.0	19.7	21.6	24.1
Other wood	239.1	193.3	225.8	318.9	351.6	434.7
Total wood	3,442.2	2,708.4	3,992.7	4,050.8	4,687.8	5,523.2
Pulp and paper	5,400.8	4,515.4	4,379.6	5,801.9	5,720.0	6,973.8
Asphalt roofing	99.9	107.3	101.9	132.6	136.4	207.7
Paper box and bag	675.2	666.9	749.9	819.1	847.1	896.3
Other paper	629.9	586.0	709.0	738.1	820.8	839.6
Total paper	6,805.8	5,875.6	5,940.4	7,491.7	7,524.3	8,917.4
Other industries	68,195.8	64,763.9	71,786.0	82,563.1	89,146.4	..
Total manufacturing	78,443.8	73,347.9	81,719.1	94,105.6	101,358.5	..

8.7 Total activity of the wood industries, 1986 (million dollars)

Province	Sawmills	Other wood	Pulp and paper	Other paper	Total
Newfoundland	4.6	3.2	141.7	6.3	155.8
Prince Edward Island	0.8	6.6	—	—	7.4
Nova Scotia	40.5	29.3	232.7	26.5	329.0
New Brunswick	91.7	63.9	426.6	13.6	595.8
Quebec	652.1	632.0	2,547.3	551.6	4,383.0
Ontario	323.2	767.9	1,680.2	1,109.6	3,880.9
Manitoba	8.7	78.8	80.3	43.5	211.3
Saskatchewan	21.4	36.7	62.3	10.3	130.7
Alberta	145.2	168.3	108.2	77.7	499.4
British Columbia	1,927.5	520.7	1,694.4	104.7	4,247.3
Total	3,215.7	2,307.4	6,973.7	1,943.8	14,440.6

8.8 Exports of wood products, 1984-86 (million dollars)

Commodity	1984	1985	1986
Newsprint	4,783.5	5,411.5	5,660.9
Lumber	4,257.1	4,594.9	4,980.3
Pulp	3,906.5	3,405.5	4,072.1
Other wood	1,298.8	1,278.1	1,342.7
Printing and wrapping paper	869.4	888.4	1,029.3
Other paper	452.1	464.8	604.8
Total	15,567.4	16,043.2	17,690.1

8.9 Imports and exports of fish products

Product group and country	Imports							
	1986				1987			
	Quantity t	Value \$'000	Quantity %	Value %	Quantity t	Value \$'000	Quantity %	Value %
Seafish								
Fresh or frozen	56 206	154,934	100	100	67 157	172,101	100	100
United States	38 812	104,082	69	67	54 750	126,764	82	74
European Economic Community	10 352	29,445	18	19	3 427	12,214	5	10
Japan	1 443	4,801	3	3	862	3,944	1	3
Steaks, blocks, etc., fresh or frozen	6 250	21,334	100	100	7 995	28,941	100	100
United States	5 770	19,856	92	93	6 821	26,171	85	90
Smoked	450	2,546	100	100	427	2,223	100	100
United States	132	877	29	34	140	763	33	34
European Economic Community	276	1,445	61	57	235	1,099	55	49
Salted and dried	1 278	5,212	100	100	1 197	5,957	100	100
United States	446	1,315	35	25	254	1,072	21	18
Norway	203	910	16	17	150	1,218	13	20
Hong Kong	188	1,130	15	22	182	1,237	15	21
Cured and pickled	410	620	100	100	457	905	100	100
United States	26	50	6	8	58	83	13	9
European Economic Community	254	401	62	66	289	632	63	70
Canned ¹	21 188	91,978	100	100	26 428	117,206	100	100
United States	2 321	10,811	11	12	2 169	12,189	8	10
Japan	5 491	28,376	26	31	4 000	20,953	15	18
Philippines	963	3,087	5	3	—	—	—	—
Thailand	7 500	25,071	35	27	12 516	44,874	47	38
Fiji	675	2,954	3	3	—	—	—	—
Meal	2 994	1,323	100	100	4 334	1,941	100	100
United States	1 640	709	55	54	2 843	1,254	66	65
Oil	468	880	100	100	583	2,308	100	100
United States	185	272	40	31	264	842	45	36
Norway	98	224	21	25	159	687	27	30
Other seafish products	6 129	12,967	100	100	7 626	16,012	100	100
United States	5 427	7,655	89	59	6 083	9,362	80	58
Japan	371	1,979	6	15	1 005	2,394	13	15
Shellfish								
Fresh or frozen	29 678	269,807	100	100	29 557	283,242	100	100
United States	18 496	146,166	62	54	19 153	164,258	65	58
Hong Kong	2 641	27,582	9	10	1 867	15,133	6	5
Cuba	663	14,144	2	5	708	20,090	2	7
Ecuador	428	6,509	1	2	1 631	18,690	6	7
Canned	9 167	42,640	100	100	9 900	52,810	100	100
United States	942	8,801	10	21	667	8,667	7	16
Japan	43	229	—	1	67	1,064	1	2
South Korea	1 746	9,295	19	22	1 501	8,237	15	16
Thailand	4 517	15,258	49	36	4 317	18,881	44	36
Other shellfish products	15 023	1,539	100	100	17 927	1,536	100	100
United States	15 023	1,539	100	100	17 927	1,536	100	100
Total, sea fisheries	149 241	605,780	...	...	173 588	658,182	...	...
Freshwater fisheries								
Fresh or frozen	3 130	10,695	100	100	3 179	11,631	100	100
United States	2 769	9,488	88	89	2 775	10,562	87	91
Total imports, all groups	152 371	616,479	...	...	176 767	696,813	...	...
Summary by main countries								
United States	91 986	311,585	60	51	114 094	364,655	64	52
European Economic Community	13 907	50,559	9	8	8 591	41,348	5	6
Other European countries	3 100	9,474	2	2	2 143	8,583	1	1
Central and South America	4 507	43,350	3	7	6 624	61,181	4	8
Japan	8 276	45,156	5	7	7 173	40,028	4	6
All other countries	30 595	156,316	20	25	38 143	181,018	22	26
Total, all countries	152 364	616,441	100	100	176 769	696,813	100	100
	Exports							
	1986				1987			
	Quantity t	Value \$'000	Quantity %	Value %	Quantity t	Value \$'000	Quantity %	Value %
Seafish								
Whole or dressed, fresh	77 569	125,144	100	100	80 069	137,731	100	100
United States	70 327	120,048	91	96	72 839	133,298	91	97
USSR	3 628	604	5	—	6 645	1,067	8	1
Whole or dressed, frozen	89 499	343,855	100	100	71 681	284,591	100	100
United States	11 587	43,624	13	13	13 366	43,977	19	15

8.9 Imports and exports of fish products (concluded)

Product group and country	Exports							
	1986				1987			
	Quantity t	Value \$'000	Quantity %	Value %	Quantity t	Value \$'000	Quantity %	Value %
European Economic Community	15 409	73,529	17	21	13 032	66,745	18	23
Japan	51 864	202,852	58	59	28 951	125,005	40	44
Fillets, fresh	32 546	153,367	100	100	25 221	142,303	100	100
United States	32 307	152,507	99	99	24 931	140,991	99	99
Fillets, frozen	75 421	327,382	100	100	81 049	449,020	100	100
United States	66 132	303,919	88	93	75 609	248,101	93	94
European Economic Community	5 968	14,264	8	4	1 799	2,224	2	—
Blocks, frozen	60 263	209,549	100	100	61 080	260,490	100	100
United States	55 260	194,040	92	93	55 435	249,068	91	96
European Economic Community	4 025	12,140	7	6	—	—	—	—
Smoked	8 234	18,996	100	100	9 239	21,801	100	100
United States	910	5,276	11	28	1 089	5,506	12	25
Dominican Republic	2 924	4,152	36	22	3 182	5,169	34	24
Salted and dried	43 528	145,848	100	100	38 190	176,142	100	100
United States	9 348	39,593	21	27	7 571	44,789	20	25
European Economic Community	12 194	44,644	28	31	13 591	70,646	36	40
Puerto Rico	5 720	19,813	13	14	4 379	21,072	11	12
Cured and pickled	25 560	23,834	100	100	20 380	20,757	100	100
United States	8 357	11,704	33	49	8 103	11,672	40	56
European Economic Community	516	539	2	—	—	—	—	—
Haiti	4 217	2,505	16	11	4 061	2,826	20	14
Canned	37 937	191,443	100	100	37 743	216,990	100	100
United States	4 498	19,900	12	10	3 973	109,084	11	7
European Economic Community	18 813	111,979	50	58	14 863	20,671	40	50
Australia	2 659	17,689	7	9	5 425	32,955	14	15
New Zealand	1 789	8,454	5	4	485	2,089	1	1
Meal	20 007	9,276	100	100	23 394	13,677	100	100
United States	10 061	6,559	50	71	13 991	9,248	60	68
European Economic Community	1 373	513	7	6	—	—	—	—
Oil	5 243	2,875	100	100	6 958	3,147	100	100
United States	5 143	2,814	98	98	6 409	2,665	92	85
European Economic Community	—	—	—	—	52	76	1	2
Roe	12 243	164,587	100	100	18 200	270,707	100	100
Japan	10 504	153,578	86	93	14 994	246,622	82	91
Other seafood products	16 385	9,393	100	100	20 975	15,600	100	100
United States	15 793	7,513	96	80	20 510	13,836	98	89
Shellfish								
In shell and meat, fresh and frozen	54 876	580,746	100	100	56 410	630,200	100	100
United States	36 949	432,974	67	75	36 843	435,980	65	69
European Economic Community	2 593	18,882	5	3	4 501	35,968	8	6
Japan	8 739	61,197	16	11	7 895	78,516	14	12
Canned	444	7,405	100	100	599	6,101	100	100
United States	129	2,309	29	31	156	1,995	26	33
European Economic Community	142	3,150	32	43	251	1,785	42	29
Japan	93	1,208	21	16	42	1,082	7	18
Miscellaneous ²	9 323	15,675	100	100	8 133	16,784	100	100
United States	5 284	4,120	57	26	4 242	5,120	52	31
European Economic Community	3 609	4,129	39	26	2 156	1,851	26	11
Total, sea fisheries	565 415	2,318,793	...	...	559 321	2,666,041	...	...
Freshwater fisheries								
Whole or dressed, fresh and frozen	17 269	44,044	100	100	21 590	52,177	100	100
United States	10 916	33,188	63	75	13 839	37,838	64	73
European Economic Community	995	2,897	6	7	804	2,978	4	6
Japan	3 815	4,762	22	11	5 138	8,016	24	15
Fillets and blocks, fresh and frozen	8 171	59,307	100	100	6 913	54,485	100	100
United States	6 652	49,035	81	83	5 290	40,581	77	74
European Economic Community	1 262	8,651	15	15	1 176	9,793	17	18
Total exports, all groups	594 518	2,432,727	...	...	587 824	2,772,703	...	...
Summary by main countries								
United States	350 071	1,431,514	59	59	366 045	1,624,181	62	59
European Economic Community	73 547	353,677	12	15	77 161	437,318	13	16
Other European countries	34 955	60,744	6	2	29 628	65,870	5	2
Central and South America	32 981	81,196	6	3	31 137	83,322	5	3
Japan	82 457	444,601	14	18	62 468	481,394	11	17
All other countries	20 507	60,995	3	3	21 385	80,618	4	3
Total, all countries	594 518	2,432,727	100	100	587 824	2,772,703	100	100

¹ Excludes quantity of sardines and anchovy reported in number of boxes.² Quantity excludes seal skins which are reported in numbers.

8.10 Products and marketed values of fish, 1986^p and 1987^p

Year and species	Atlantic Coast		Pacific Coast		Canada	
	Quantity t	Value \$'000	Quantity t	Value \$'000	Quantity t	Value \$'000
1986 ^p						
Seafish						
Fresh and frozen, whole or dressed	116 880	179,500	91 900	276,600	208 780	456,100
Cod	22 980	25,500	240	310	23 220	25,810
Halibut	2 580	21,440	5 450	29,330	8 030	50,770
Herring	24 410	11,050	270	260	24 680	11,310
Mackerel	8 500	6,190	—	—	8 500	6,190
Salmon	840	6,600	36 260	216,010	37 100	222,610
Capelin	33 000	71,760	—	—	33 000	71,760
Fresh and frozen fillets	134 710	589,880	7 720	32,030	142 430	621,910
Cod	68 000	295,680	910	3,980	68 910	299,660
Haddock	7 790	48,290	—	—	7 790	48,290
Redfish	18 750	75,240	—	—	18 750	75,240
Pollock	6 220	17,580	110	330	6 330	17,910
Flounder and sole	21 000	123,490	560	4,650	21 560	128,140
Herring	6 200	6,610	—	—	6 200	6,610
Frozen blocks	68 750	253,700	220	590	68 970	254,290
Cod	58 000	216,840	1	1	58 000	216,840
Haddock	2 400	12,600	—	—	2 400	12,600
Redfish	500	1,030	1	1	500	1,030
Pollock	4 400	11,770	1	1	4 400	11,770
Flounder and sole	2 070	8,540	1	1	2 070	8,540
Herring	100	130	—	—	100	130
Smoked	5 130	14,090	1 150	18,110	6 280	32,200
Herring bloomers	3 310	7,640	—	—	3 310	7,640
Salmon	70	1,490	1 150	17,150	1 220	18,640
Salted	38 400	123,820	—	—	38 400	123,820
Cod	25 700	96,130	—	—	25 700	96,130
Cured and pickled	17 010	18,910	720	7,050	17 730	25,960
Herring	11 100	15,490	1	1	11 100	15,490
Mackerel	900	1,390	—	—	900	1,390
Canned	18 740	98,130	40 360	278,010	59 100	376,140
Herring and sardines	16 000	90,330	—	—	16 000	90,330
Salmon	—	—	40 360	278,010	40 360	278,010
Meal	56 400	20,130	3 480	2,050	59 880	22,180
Groundfish	45 400	15,490	—	—	45 400	15,490
Herring	11 000	4,650	1 660	1,080	12 660	5,730
Oil ²	6 700	2,790	930	420	7 630	3,210
Groundfish	2 300	1,030	—	—	2 300	1,030
Herring	4 400	1,760	330	150	4 750	1,910
Roe	6 220	46,600	5 020	97,800	11 240	144,400
Herring	4 600	40,270	2 680	83,850	7 280	124,120
Other seafish products	34 600	81,490	14 000	15,880	48 600	97,370
Shellfish						
Fresh and frozen, in shell	42 730	281,660	4 840	17,300	47 570	298,960
Squid	50	50	—	—	50	50
Lobster	19 510	169,700	—	—	19 510	169,700
Crab	14 300	92,800	570	3,620	148 700	96,420
Shrimp	4 280	12,680	330	2,660	4 610	15,340
Fresh and frozen, shucked	19 350	320,270	1 820	13,050	21 170	333,320
Scallops	6 800	105,110	—	—	6 800	105,110
Squid	—	—	—	—	—	—
Lobster	3 200	93,240	—	—	3 200	93,240
Crab	5 330	76,160	80	1,950	5 410	78,110
Shrimp	3 500	40,010	240	3,000	3 740	43,010
Canned	980	17,370	—	—	980	17,370
Clams	530	6,170	—	—	550	6,170
Lobster	260	7,570	—	—	260	7,570
Crab	140	3,480	—	—	140	3,480
Other shellfish products	10 910	12,770	380	4,540	11 290	17,310
Miscellaneous products ³	23 200	3,550	—	—	23 200	3,550
Total, sea fisheries	600 710	2,064,660	172 540	763,430	773 250	2,828,090
Inland fisheries ^c	...	...	...	...	37 400	155,000
Total, all groups	...	...	...	...	810 650	2,983,090
1987 ^p						
Seafish						
Fresh and frozen, whole or dressed	96 430	133,890	123 600	243,720	220 030	377,610
Cod	15 160	22,330	720	1,390	15 880	23,720
Halibut	1 760	15,020	4 970	26,300	6 730	41,320
Herring	29 650	14,630	330	250	29 980	14,880
Mackerel	8 900	6,590	—	—	8 900	6,590
Salmon	1 030	10,750	23 990	178,570	25 020	189,320
Capelin	16 150	23,740	—	—	16 150	23,740

8.10 Products and marketed values of fish, 1986^p and 1987^p (concluded)

Year and species	Atlantic Coast		Pacific Coast		Canada	
	Quantity t	Value \$'000	Quantity t	Value \$'000	Quantity t	Value \$'000
Seafish (concluded)						
Fresh and frozen fillets	131 750	717,150	9 900	50,140	141 650	767,290
Cod	66 200	369,630	1 980	11,490	68 180	381,120
Haddock	6 900	49,140	—	—	6 900	49,140
Redfish	20 200	89,170	—	—	20 200	89,170
Pollock	5 250	18,860	170	570	5 420	19,430
Flounder and sole	20 050	134,170	540	5,570	20 590	139,740
Herring	3 800	3,420	—	—	3 800	3,420
Frozen blocks	67 150	318,340	270	1,130	67 420	319,470
Cod	59 000	284,380	1	1	59 000	284,380
Haddock	2 120	10,990	—	—	2 120	10,900
Redfish	650	1,800	1	1	650	1,800
Pollock	1 200	3,790	1	1	1 200	3,790
Flounder and sole	2 400	11,140	1	1	2 400	11,140
Herring	360	610	—	—	360	610
Smoked	9 960	25,270	560	8,480	10 520	33,750
Herring bloaters	7 300	11,100	—	—	7 300	11,100
Salmon	140	3,210	480	7,700	620	10,910
Salted	46 200	181,160	—	—	46 200	181,160
Cod	24 600	126,870	—	—	24 600	126,870
Cured and pickled	16 650	21,570	850	6,660	17 500	28,230
Herring	12 450	16,000	—	—	12 450	16,000
Mackerel	1 820	3,040	—	—	1 820	3,040
Canned	18 290	96,740	24 000	196,320	42 290	293,060
Herring and sardines	17 020	90,470	—	—	17 020	90,470
Salmon	—	—	22 000	179,960	22 000	179,960
Meal	57 640	19,870	8 980	5,740	66 620	25,610
Groundfish	43 200	13,820	—	—	43 200	13,820
Herring	12 140	5,220	6 380	4,530	18 520	9,750
Oil ²	8 700	8,540	1 310	980	10 010	9,520
Groundfish	2 980	1,310	—	—	2 980	1,310
Herring	5 720	2,230	660	660	6 380	2,890
Roe	8 810	67,380	5 470	164,200	14 280	231,580
Herring	6 100	54,290	5 410	163,740	11 510	218,030
Other seafish products	38 510	80,410	14 880	5,820	53 390	86,230
Shellfish						
Fresh and frozen, in shell	41 830	306,300	5 720	27,360	47 550	333,660
Squid	90	200	—	—	90	200
Lobster	22 030	216,130	—	—	22 030	216,130
Crab	7 970	61,030	940	9,130	8 910	70,160
Shrimp	6 450	18,780	830	5,770	7 280	24,550
Fresh and frozen, shucked	21 650	378,920	2 020	18,810	23 670	397,730
Scallops	8 590	123,950	—	—	8 590	123,950
Squid	310	860	—	—	310	860
Lobster	3 480	110,980	—	—	3 480	110,980
Crab	4 530	78,230	70	2,360	4 600	80,590
Shrimp	3 710	41,420	390	4,970	4 100	46,390
Canned	620	11,230	70	1,140	690	12,370
Clams	310	4,420	1	1	310	4,420
Lobster	150	3,320	—	—	150	3,320
Crab	110	3,240	1	1	110	3,240
Other shellfish products	9 280	21,900	140	590	9 420	22,490
Miscellaneous products ³	22 800	3,720	—	—	22 800	3,720
Total, sea fisheries	596 270	2,387,390	201 070	739,630	797 340	3,127,020
Inland fisheries ^e	...	...	...	...	42 500	160,000
Total, all groups	...	...	...	...	839 840	3,287,020

¹ Confidential.² Includes seal oil.³ Quantity excludes number of seals.

8.11 Landings of sea and inland fish and other sea products

Province or territory	1984			1985		
	Quantity ¹ t	Landed value \$'000	Marketed value \$'000	Quantity ¹ t	Landed value \$'000	Marketed value \$'000
Newfoundland	450 584	162,244	449,793	468 219	167,502	429,837
Prince Edward Island	38 521	38,301	59,507	37 128	46,058	61,892
Nova Scotia	394 504	265,280	533,476	456 542	321,259	619,614
New Brunswick	100 012	75,567	293,710	135 859	84,447	322,334
Quebec	84 240	57,711	107,986	90 189	67,689	184,154
Ontario	22 667	35,105	70,210	23 254	40,562	81,120
Manitoba ²	13 040	18,106	34,756	13 482	18,477	35,083
Saskatchewan ²	3 508	3,998	7,922	3 888	3,746	8,134
Alberta ²	1 420	1,248	2,476	1 566	1,452	2,890
British Columbia ²	169 168	242,935	466,887	209 634	377,646	727,565
Yukon and Northwest Territories	1 163	1,459	2,723	1 298	1,507	3,042
Canada	1 278 827	901,954	1,979,440 ³	1 441 059	1,130,345	2,475,665
Seafish ⁴	1 235 397	840,440	1,859,755	1 397 571	1,064,601	2,345,665
Inland fish	43 430	61,514	119,685	43 488	65,744	130,000

¹ Nominal catches (quantity) refer to the live weight equivalent of landings.² Landed value includes final payments to fishermen.³ Excludes duplication between provinces.⁴ Includes only fish and shellfish. Landed value includes marine plants, aquatic mammals, livers, etc.**8.12 Landings of the chief commercial fish**

Area and species	1986 ^P		1987 ^P	
	Quantity t	Value \$'000	Quantity t	Value \$'000
Atlantic Coast				
Groundfish				
Cod	474 720	215,480	458 051	319,951
Haddock	44 720	37,160	28 071	34,408
Redfish	79 670	23,570	79 016	24,740
Halibut	3 700	15,230	2 417	11,077
Flatfish	89 300	37,710	90 629	48,330
Turbot	18 070	9,780	25 526	26,203
Pollock	49 680	18,020	50 223	26,576
Hake	16 900	6,900	19 792	13,546
Cusk	2 110	1,240	3 955	3,521
Catfish	3 600	890	2 979	944
Other	3 490	2,180	3 566	3,101
Sub-total, groundfish	785 960	368,160	764 225	512,397
Pelagic and other finfish				
Herring	186 730	34,160	248 744	52,529
Mackerel	28 460	5,760	26 671	9,106
Tuna	90	680	222	967
Alewife	5 630	1,330	8 824	1,844
Eel	890	2,770	796	3,020
Salmon	1 320	5,340	1 541	6,223
Skate	170	10	187	18
Smelts	2 420	2,910	1 581	1,377
Capelin	66 490	20,370	33 269	7,988
Other	1 600	7,870	2 248	7,565
Sub-total, pelagic and other finfish	293 800	81,200	324 083	90,637
Shellfish				
Clams	8 150	9,690	8 017	9,733
Oysters	2 350	3,280	2 277	4,109
Scallops	57 000	74,300	73 813	94,768
Squid	70	40	183	58
Lobster	38 030	242,690	39 431	282,641
Shrimp	14 660	24,730	22 163	44,863
Crab	42 830	67,480	28 798	78,007
Other	2 430	2,900	2 923	3,158
Sub-total, shellfish	165 520	425,110	177 605	517,337

8.12 Landings of the chief commercial fish (concluded)

Area and species	1986 ^P		1987 ^P	
	Quantity t	Value \$'000	Quantity t	Value \$'000
Other sea products	—	4,010	—	5,981
Total, Atlantic Coast	1 245 280	878,480	1 265 913	1,126,352
Pacific Coast				
Groundfish				
Cod ¹	3 668	2,166	13 020	8,130
Redfish	24 828	15,630	22 480	16,680
Halibut	5 389	24,455	5 000	26,020
Flatfish	2 807	1,881	2 930	2,910
Turbot	892	202	1 080	310
Pollock	598	150	790	230
Hake ²	36 505	5,260	81 760	9,680
Other	9 008	14,950	7 120	13,970
Sub-total, groundfish	83 695	64,694	134 180	77,930
Pelagic and other finfish				
Herring	16 341	39,837	37 360	96,000
Tuna	30	93	..	..
Salmon				
Spring	4 420	19,658	5 157	3
Sockeye	29 811	143,270	14 823	3
Coho	11 666	39,264	8 251	3
Pink	29 264	25,690	26 519	3
Chum	24 922	37,614	10 182	3
Steelhead	158	277	..	..
Skate	517	280	730	120
Other	2 707	1,013	3 550	1,440
Sub-total, pelagic and other finfish	119 836	306,997	106 572	287,560
Shellfish				
Clams	7 953	8,162	9 580	12,240
Oysters	2 864	2,515	3 780	2,940
Scallops	70	210	45	160
Squid	20	30	—	—
Shrimp	1 318	4,974	2 740	7,260
Crab	1 321	5,661	1 600	6,280
Other	3 183	2,335	3 065	2,230
Sub-total, shellfish	16 729	23,887	20 810	31,110
Other items	—	6,381	—	5,300
Total, Pacific Coast	220 260	401,959	261,562	401,900
Inland				
Eel	103	245	..	..
Chub	1 014	2,548	..	..
Smelts	8 353	2,984	..	..
Bass	1 468	2,557	..	..
Sturgeon	30	247	..	..
Whitefish	8 847	9,411	..	..
White perch	221	188	..	..
Bullheads	216	269	..	..
Tullibee	204	126	..	..
Lake trout	880	1,004	..	..
Pickercel	7 434	24,048	..	..
Northern pike	3 353	3,313	..	..
Yellow perch	5 870	23,209	..	..
Carp	440	107	..	..
Lake herring	828	640	..	..
Sauger	1 315	2,922	..	..
Drum	482	65	..	..
Mullet	1 918	384	..	..
Inconnu	62	106	..	..
Other fish	136	104	..	..
Total, Inland	43 174	74,477	43 000	80,500

¹ Includes grey cod only.² Includes co-operative arrangement of sales of hake to foreign vessels.³ No breakdown for value; total value for 1987 was \$1,900,000.

8.13 Quantity and value of all fishery products, by product group and species

Area, product group and species	1985 ^P		1986 ^P	
	Quantity t	Value \$'000	Quantity t	Value \$'000
Atlantic Coast				
Seafish				
Fresh and frozen, whole or dressed	131 850	137,540	116 880	179,500
Cod	28 000	27,500	22 980	25,500
Halibut	2 800	18,640	2 580	21,440
Herring	45 700	20,600	24 410	11,050
Mackerel	11 800	6,600	8 500	6,190
Salmon	560	5,250	840	6,600
Capelin	16 800	21,000	33 000	71,760
Fresh and frozen fillets	121 250	434,940	134 710	589,880
Cod	61 500	218,300	68 000	295,680
Haddock	5 700	28,650	7 790	48,290
Redfish	17 100	53,600	18 750	75,240
Pollock	5 950	13,100	6 220	17,580
Flounder and sole	18 500	92,600	21 000	123,490
Herring	5 450	5,100	6 200	6,610
Frozen blocks	58 660	155,710	68 750	253,700
Cod	50 000	134,000	58 000	216,840
Haddock	1 650	5,400	2 400	12,600
Redfish	150	250	500	1,030
Pollock	3 400	5,000	4 400	11,770
Flounder and sole	2 400	9,150	2 070	8,540
Herring	25	20	100	130
Smoked	3 920	11,230	5 130	14,090
Herring bloaters	3 110	5,530	3 310	7,640
Salmon	50	1,300	70	1,490
Salted	44 450	112,350	38 400	123,820
Cod	33 930	89,730	25 700	96,130
Cured and pickled	20 260	19,070	17 010	18,910
Herring	16 000	14,760	11 100	15,490
Mackerel	650	950	900	1,390
Canned fish	27 040	122,550	18 740	98,130
Herring and sardines	17 900	80,800	16 000	90,330
Meal	53 140	17,410	56 400	20,130
Groundfish	43 200	12,500	45 400	15,490
Herring	9 100	4,600	11 000	4,650
Oil ¹	6 920	2,780	6 700	2,790
Groundfish	2 900	1,070	2 300	1,030
Herring	4 000	1,700	4 400	1,760
Roe	5 800	40,200	6 220	46,600
Herring	5 200	39,100	4 600	40,270
Other seafish products	32 370	63,550	34 600	81,490
Shellfish				
Fresh and frozen in shell	39 850	210,650	42 730	281,660
Squid	40	20	50	50
Lobster	17 500	138,230	19 510	169,700
Crab	15 200	57,000	14 300	92,800
Shrimp	3 800	11,000	4 280	12,680
Fresh and frozen, shucked	17 180	256,450	19 350	320,270
Scallops	5 700	81,200	6 800	105,110
Squid	—	—	—	—
Lobster	2 500	67,800	3 200	93,240
Crab	6 000	74,800	5 330	76,160
Shrimp	2 300	25,500	3 500	40,010
Canned shellfish	1 560	21,000	980	17,370
Clams	800	6,550	530	6,170
Lobster	250	5,650	260	7,570
Crab	500	8,800	140	3,480
Other shellfish products	12 640	8,470	10 910	12,770
Miscellaneous products ²	22 400	3,200	23 200	3,550
Total Atlantic sea fisheries	599 290	1,617,100	600 710	2,064,660
Pacific Coast				
Seafish				
Fresh and frozen, whole or dressed	73 641	265,366	91 900	276,600
Cod	200	232	240	310
Halibut	4 694	18,035	5 450	29,330
Herring	140	95	270	260
Salmon	38 521	220,784	36 260	216,010
Fresh and frozen fillets	6 611	25,200	7 720	32,030
Cod	560	2,102	910	3,980
Pollock	381	1,220	110	330
Flounder and sole	740	4,254	560	4,650
Frozen blocks	57	133	220	590
Smoked	819	12,080	1 150	18,110
Salmon	747	11,547	1 150	17,150

8.13 Quantity and value of all fishery products, by product group and species (concluded)

Area, product group and species	1985 ^P		1986 ^P	
	Quantity t	Value \$'000	Quantity t	Value \$'000
Pacific Coast (concluded)				
Cured and pickled	937 ₃	7,514 ₃	720 ₃	7,050 ₃
Herring				
Canned	41 431	258,905	40 360	278,010
Salmon	41 378	258,646	40 360	278,010
Meal	7 267	3,299	3 480	2,050
Herring	4 552	2,121	1 660	1,080
Oil ¹	1 277	1,001	930	420
Herring	452	242	330	150
Roe	5 890	109,514	5 020	97,800
Herring	3 787	97,491	2 680	83,850
Other seafood products	13 379	14,610	14 000	15,880
Shellfish				
Fresh and frozen in shell	3 975	12,909	4 840	17,300
Crab	783	4,427	570	3,620
Shrimp	358	2,561	330	2,660
Fresh and frozen, shucked	1 984	12,191	1 820	13,050
Crab	48	1,183	80	1,950
Shrimp	209	2,669	240	3,000
Canned	2	15	—	—
Clams	3	3	—	—
Crab	3	3	—	—
Other shellfish products	650	4,828	380	4,540
Total Pacific sea fisheries	157 920	727,565	172 540	763,430
Total, inland	34 300	131,000	37 400	155,000
Total, Canada	791 510	2,475,665	810 650	2,983,090

¹ Includes seal oil.² Quantity excludes number of seals.³ Confidential.**8.14 Pacific Coast production of canned salmon**

Kind	1984		1985	
	Quantity ^r t	Value \$'000	Quantity t	Value \$'000
Chum	1 493	6,434	5 859	22,788
Coho	562	3,791	861	5,941
Pink	7 369	38,028	21 815	111,657
Sockeye	5 025	45,898	12 707	117,658
Spring	59	281	104	505
Steelhead	6	25	22	97
Total	14 514	94,457	41 368	258,646

8.15 Number of registered fishermen, by province

Type and region	1983	1984	1985 [†]
Sea fisheries			
Newfoundland	28,074	27,617	26,615
Prince Edward Island	3,182	3,399	3,720
Nova Scotia	12,543	13,235	13,978
New Brunswick	6,466	6,557	7,358
Quebec	6,234	8,050	6,369
British Columbia	17,061	17,299	18,168
Total, sea fisheries	73,560	76,157	76,208
Freshwater fisheries			
New Brunswick	101	108	110
Quebec	442	450	326
Ontario	1,981	1,588	1,893
Prairie provinces ¹	5,392	5,600	5,921
Total, freshwater fisheries	7,916	7,746	8,250
Total, Canada	81,476	83,903	84,458

¹ Includes Northwest Territories.**8.16 Number of establishments and employees in the fish processing industry, by province**

Province or territory	1984		1985	
	Establishments	Employees	Establishments	Employees
Newfoundland	99	8,637	96	9,134
Prince Edward Island	19	712	21	767
Nova Scotia	100	5,793	99	6,412
New Brunswick	74	3,829	70	3,963
Quebec	39	1,859	38	2,276
Ontario	15	1	16	1
Manitoba	1	1	2	1
Saskatchewan	1	1	1	1
Alberta	--	1	1	1
British Columbia	49	2,972	47	3,695
Northwest Territories	--	1	2	1
Total, Canada	397	24,372	393	26,964

¹ Confidential, included in Canada total.**8.17 Fur farm production (dollars)**

Province or territory	Value of mink pelts produced on fur farms			
	1984-85	1985-86 [†]	1986-87	1987-88
Newfoundland	396,453	347,077	409,464	343,100
Prince Edward Island	485,063	622,001	942,534	612,071
Nova Scotia	9,257,254	8,712,889	14,489,618	7,328,942
New Brunswick	454,602	416,805	629,844	386,288
Quebec	8,586,178	6,689,095	6,268,311	3,192,573
Ontario	19,903,219	17,257,609	28,380,625	18,350,147
Manitoba	1,881,537	1,574,615	2,380,315	1,431,090
Saskatchewan	98,852	41,580	62,611	36,435
Alberta	1,450,803	1,057,539	1,711,789	1,150,672
British Columbia	7,534,543	5,978,616	10,847,464	6,495,504
Yukon	—	—	—	—
Northwest Territories	—	—	—	—
Canada	50,048,504	42,697,826	66,122,575	39,326,822

8.17 Fur farm production (dollars) (concluded)

Province or territory	Value of fox pelts produced on fur farms			
	1984-85	1985-86 ¹	1986-87	1987-88
Newfoundland	93,030	101,423	355,733	152,626
Prince Edward Island	1,496,232	1,162,547	2,408,133	1,077,360
Nova Scotia	1,132,020	1,226,805	2,855,245	1,595,391
New Brunswick	1,561,664	1,494,604	3,717,021	1,993,116
Quebec	623,766	810,692	1,330,909	766,542
Ontario	776,005	806,416	1,663,345	755,818
Manitoba ¹	186,060	176,217	165,782	73,620
Saskatchewan ²			206,780	86,727
Alberta	165,593	115,664	200,693	122,639
British Columbia	232,575	394,347	548,010	330,929
Canada ²	6,266,945	6,288,715	13,451,651	6,954,768

¹ Saskatchewan included in Manitoba total prior to 1986.² Confidential.**8.18 Pelts of wildlife fur-bearing animals taken, by kind, years ended June 30**

Kind	1984-85 ¹ fur season			1985-86 fur season			1986-87 fur season		
	Pelts No.	Total value \$	Average value ¹ \$	Pelts No.	Total value \$	Average value ¹ \$	Pelts No.	Total value \$	Average value ¹ \$
Badger	3,723	83,738	22.49	2,036	45,699	22.45	2,298	56,026	24.38
Bear									
White	296	208,610	704.76	351	270,962	771.97	274	226,623	827.09
Black or brown	2,411	110,671	45.90	2,385	115,679	48.50	2,668	148,329	55.60
Grizzly	8	3,552	444.00	8	3,600	450.00	—	—	—
Beaver	371,385	11,199,239	30.16	424,086	14,827,515	34.96	505,833	20,277,637	40.09
Cougar	15	2,685	179.00	15	3,187	212.47	—	—	—
Coyote	82,258	4,910,734	59.70	65,403	3,954,029	60.46	78,941	5,385,231	68.22
Ermine (weasel)	72,849	153,603	2.11	61,291	147,794	2.41	85,025	192,705	2.27
Fisher	14,483	2,689,230	185.68	15,537	2,992,087	192.58	15,021	3,533,712	235.25
Fox									
Blue	245	5,836	23.82	75	1,038	13.84	269	5,398	20.07
Cross and red	65,877	2,999,390	45.53	75,375	2,586,170	34.31	72,378	2,683,685	37.08
Silver	990	52,230	52.76	666	22,379	33.60	801	33,820	42.22
White	22,707	402,004	17.70	6,418	109,129	17.00	8,055	138,749	17.23
Not specified	3	104	34.67	4	59	14.75	9	240	26.67
Lynx	8,625	5,273,121	611.38	6,853	4,147,662	605.23	6,951	3,693,771	531.40
Marten	161,168	9,351,673	58.02	183,856	9,139,484	49.71	222,674	21,595,583	96.98
Mink	69,167	2,221,352	32.12	88,149	3,083,665	34.98	101,561	4,381,486	43.14
Muskrat	1,444,787	5,783,273	4.00	1,379,485	4,858,661	3.52	1,675,243	7,684,301	4.59
Otter	19,911	1,082,197	54.35	19,932	944,599	47.39	20,668	979,199	47.38
Rabbit	—	—	—	11	17	1.55	—	—	—
Raccoon	116,929	2,791,249	23.87	111,699	2,323,948	20.81	139,221	3,151,968	22.64
Seal									
Fur, North Pacific ²	...	...	...	...	...	...	...	...	...
Hair ³	...	...	...	...	...	...	...	...	...
Skunk	487	934	1.92	324	757	2.34	306	950	3.11
Squirrel	264,293	234,470	0.89	232,340	180,110	0.78	255,955	194,244	0.76
Wildcat	2,128	329,795	154.98	1,861	247,213	132.84	1,748	377,119	215.74
Wolf	3,666	403,795	110.15	3,599	374,002	103.92	3,316	374,430	112.92
Wolverine	831	186,602	224.55	768	169,217	220.34	744	149,834	201.39
Total	2,729,242	50,480,087	...	2,682,527	50,548,662	...	3,199,959	75,265,040	...

¹ Average value is the price paid to trapper.² Commonly known as Alaska fur seal: value figures are the net returns to the Canadian government for pelts sold.³ Hair seal data for Canada are confidential.

8.19 Value of wildlife pelts produced (dollars)

Province or territory	1982-83	1983-84	1984-85	1985-86	1986-87
Newfoundland	550,928	696,081	772,597	728,338	1,353,123
Prince Edward Island	164,107	195,451	210,580	151,425	206,226
Nova Scotia	722,936	661,364	867,651	822,202	1,038,906
New Brunswick	755,365	959,842	1,274,218	1,441,168	1,688,658
Quebec	6,707,333	5,902,703	8,137,815 ^a	8,872,873	10,967,425
Ontario	14,345,905	13,042,242	13,913,003	14,368,665	21,579,593
Manitoba	4,314,014	3,783,562	4,784,524	5,061,210	8,070,118
Saskatchewan	4,092,591	3,960,468	5,099,682	5,007,639	7,577,296
Alberta	7,597,456	5,690,063	6,881,100	6,631,285	10,189,205
British Columbia	3,836,678	3,594,233	4,897,008	3,179,386	5,790,308
Yukon	1,178,518	737,103	1,279,737	1,045,296	1,181,382
Northwest Territories	2,793,778	2,663,947	3,240,838 ^b	3,239,201	5,623,151
Canada	47,059,609	41,887,059	51,358,753 ^c	50,548,688	75,265,391

8.20 Exports and imports of furs, years ended June 30 (thousand dollars)

Kind of fur	1984-85 fur season			1985-86 fur season			1986-87 fur season		
	Britain	United States	All countries	Britain	United States	All countries	Britain	United States	All countries
Exports									
Undressed									
Beaver	447	1,730	6,984	13	2,387	7,509	46	3,977	13,770
Chinchilla	—	191	210	—	178	201	—	228	229
Ermine (weasel)	159	20	185	50	20	84	203	14	243
Fisher	269	2,847	3,229	17	2,277	2,877	—	3,268	3,918
Fox, all types	2,233	4,109	11,209	768	3,668	11,763	2,015	5,075	21,210
Lynx	71	4,196	4,893	58	3,044	4,397	13	2,305	4,314
Marten	2,411	1,651	8,663	727	2,485	8,624	3,578	5,358	21,846
Mink	2,306	13,622	36,003	1,705	13,564	34,571	1,595	25,282	57,285
Muskrat	2,892	708	8,007	1,668	89	7,908	4,167	420	15,440
Otter	—	92	122	—	59	135	—	75	216
Rabbit	—	76	134	—	128	225	—	97	97
Seal	—	—	446	—	—	235	—	—	60
Squirrel	210	33	257	114	1	190	245	1	251
Wolf	1,060	1,108	3,366	89	1,033	3,588	537	1,307	3,996
Other	2,175	1,870	17,971	729	1,793	14,784	2,946	3,171	26,265
Dressed									
Mink	21	1,110	6,836	2	343	8,609	45	396	8,797
Raccoon	23	4,452	5,874	—	4,347	6,573	32	6,221	12,317
Fur plates, mats	—	1	106	—	79	250	—	73	236
Other	20	6,779	8,727	23	5,847	9,504	265	7,926	15,373
Fur goods apparel	2,155	114,256	144,101	2,512	138,775	167,625	3,313	182,093	228,493
Total	16,452	158,851	267,323	8,475	180,117	289,652	19,000	247,287	434,356
Imports									
Undressed									
China and Japan mink	—	—	—	—	—	11	—	—	1,060
Fox	4,251	11,083	37,658	4,144	9,249	34,508	11,150	14,170	46,982
Kolinsky	—	—	—	—	—	—	—	—	—
Mink	4,265	27,958	66,625	2,384	27,220	62,038	3,652	29,963	67,359
Muskrat	—	5,972	5,972	26	5,802	5,830	21	10,912	10,933
Persian lamb	—	—	—	—	3	—	—	23	25
Rabbit	—	56	77	—	22	3	1	17	119
Raccoon	402	57,843	59,349	256	44,775	46,336	1,196	68,132	71,530
Other	803	27,324	30,736	255	25,795	30,607	408	38,572	41,760
Dressed									
Hatters' furs	—	2	2	—	—	—	—	—	—
Mink	215	4,698	11,573	1,667	4,939	15,710	5,899	4,147	15,260
Seal	1	1,627	1,717	14	1,522	1,675	5	1,078	1,310
Sheep and lamb	257	1,027	1,850	221	1,064	1,909	136	1,753	2,528
Fur plates, mats	489	288	3,598	368	240	4,574	317	185	5,392
Other	272	4,695	6,571	658	6,704	10,368	663	5,216	9,398
Fur goods apparel	66	2,542	20,498	47	2,369	32,508	60	2,630	56,179
Total	11,021	145,115	246,226	10,040	129,704	246,112	23,508	176,798	329,835

Sources

- 8.1 - 8.4 Communications Branch, Forestry Canada.
8.5 - 8.8 Industry Division, Statistics Canada.
8.9 - 8.16 Communications Directorate, Department of Fisheries and Oceans.
8.17 - 8.20 Agriculture Division, Statistics Canada.



CHAPTER 9

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CHAPTER 9

AGRICULTURE

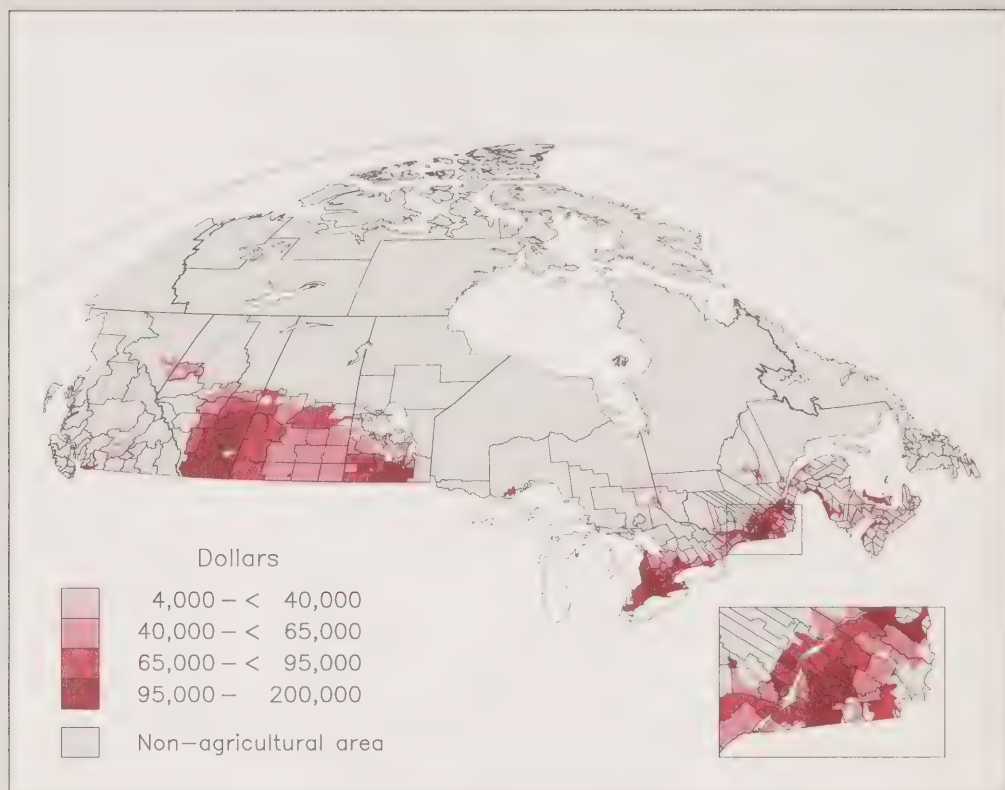
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AVERAGE SALES OF AGRICULTURAL PRODUCTS PER FARM, 1985

Higher than average sales of agricultural products per farm were found near Calgary, Winnipeg, Toronto and Montreal.

Average agricultural sales were higher in Manitoba, Saskatchewan and Alberta because of the larger average size of farms. Despite the smaller size of Ontario farms, returns per hectare from crops such as grain, corn and soybeans resulted in high average sales. In Quebec, the dairy industry was the major contributor to higher average agricultural sales.

In Canada, from 1981 to 1986, average sales of agricultural products increased nearly 43%. The increase in average sales in Quebec was 73%, in Newfoundland, 70%, and in New Brunswick, 65%. The effect of changing prices for agricultural commodities was minor during this period and did not account for much of the growth in average farm sales.

Note: Sales of agricultural products are reported by respondents for the year prior to the census; thus data for the 1986 Census of Agriculture were for 1985.

CHAPTER 9

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9.1 Changes in farm life

Today perhaps three or four Canadian families out of every 100 is a farming family. In 1885, when the first Canadian transcontinental rail line was completed, 60 families out of every 100 were farm families and the agricultural settlement of the West, and even of major areas of Eastern Canada, was only starting.

Canada is rapidly leaving behind the days when a close acquaintance with the farming experience could be said to be typical of the majority of Canadians, either through direct on-farm living experience or through having relatives with that experience.

The Census year showing the peak number of farms was 1941, with 733,000 farms. In 1981, the number of farms was 318,361, yet the volume of agricultural production was about 175% greater in 1981 than in 1941. In 1986, there were 293,089 Census-farms.

The 1940s marked the beginning of a time of major technological change. From 1921 to 1941, the number of farms changed very little and the introduction of the internal combustion engine, replacing horses, was gradual. But in the 10 years from 1941 to 1951, the number of horses on farms declined by twice as much as in the entire 20 years from 1921 to 1941. There was a reduction of 3 million horses by 1960, when the transition was essentially complete.

The increase in farm size and reduction of farm numbers has continued. Other changes, added to the use of petroleum and electricity, have included major varietal improvements, development of highly effective pesticides, control of animal health through antibiotics, broad improvement in poultry and livestock through breeding, improved efficiency in feeding, and greatly expanded use of fertilizers. All of this has meant huge increases in the capital requirements of farming in buildings, machinery and equipment, and in production inputs produced off the farm — fuel, electricity, fertilizers, pesticides, seed and veterinary and other services. Specialization in farming has become more and more characteristic of the industry.

The modern history of food production in Canada has therefore been one of constant and sweeping change, begun by the lure of new lands, driven by scientific and technological advances, shaken by drought and depression, and challenged by the crisis conditions of two world wars, and in recent decades by the rising food needs of an exploding world population. One perspective on Canada's agricultural history that should not be forgotten is that the democratic aspirations of the nation were reflected in its homestead and other land settlement policies and programs that established the family-owned and family-operated farm as the basis of agricultural development.

The drama of the last 100 years in Canadian agriculture has taken place on hundreds of thousands of individual farms — the farmer's home and place of business — through the efforts of the entire farm family: in cultivation, animal husbandry, community organization and co-operation. It has also taken place in the laboratories and in the experimental plots and greenhouses of the scientists, on the drawing boards of engineers, in the work of extension specialists and elected officials of the community, and in agricultural schools and colleges. It has taken place in the advance of the science and technology required to transport, process and preserve the products of the farm and to ensure their quality and purity. It has taken place in battles against plant and animal diseases. It has taken place in the patient work of animal breeders, on and off the farm. It has taken place in efforts to protect and improve the structure and nutrient capacity of the soil which is the very foundation of the industry. Throughout the 1980s, there existed a growing awareness of the problems of urban encroachment on the most fertile of Canada's agricultural land and of the very great need to conserve for the future the soil and water resources.

Along with advancing technology, the urbanization of the population and increasing incomes, massive changes in food processing and distribution have also occurred. The costs of

transportation, processing, packaging and retailing have risen and the farm gate price of farm products has become a declining proportion of the final consumer price. When the costs of food processing and distribution are added to the costs of inputs produced off the farm, the proportion of the consumer food dollar that represents a return to the farmer's land, labour and capital is slightly more than 10%.

The bulk of the economic activity involved in supplying food to the consumer does not take place on the farm and has contributed to employment in towns and cities; yet the farmer remains a key player. In an industry dispersed over tens of millions of hectares, the human challenges have been great, depending in the end on the competence, innovation, decision-making and co-operation of tens of thousands of individual producers.

A major portion of agricultural production in Canada is exported. In 1985, 51% of all Canadian agricultural production was exported; 70% of the agricultural products exported were grains and oilseeds. Wheat holds the prime place in Canada's agricultural exports: approximately half of all agricultural exports is wheat.

During the 1980s, world grain prices declined and produced a period of great financial stress for farmers, due to compounded interest rates during the high inflation years of 1981 and 1982 — exacerbated by drought and grasshoppers in the Prairie provinces in 1984 and widespread drought in 1987/88.

The role of government — federal, provincial and municipal — has been crucial, for research, extension, credit, regulation, inspection, orderly community development, and services of many kinds. In agriculture, government has had a unique pervasiveness and intimacy because of the extremely dispersed nature of farming, and the very limited size of the individual enterprise. Agriculture has been so fundamental and vital to the nation's development that its progress could not be left to chance.

From the early days of settlement, farmers recognized a need to take organized action to serve their economic, social and professional needs. For example, they organized to press for government legislative and policy action, to form their own co-operative marketing and supply businesses, to assist in acquiring the knowledge and skills so essential for survival in a new and often unfamiliar environment, to take legal action when their rights were threatened, and to associate for improvement in animal breeding, cultivation methods and seed growing.

The farmer's organizational needs were not only to help him learn to do his job better, but to protect himself from economic exploitation and damaging instability. They were also to help ensure that there was orderly regulation and inspection for grading, quality control, and protection from infectious diseases.

The history of farm organizations in Canada makes a long, complex and often dramatic story. The issues and problems are not all settled today, nor is the drama lacking. The dramatic and complex debate surrounding the federal government's move to restructure western grain transportation policy and Crow's Nest Pass statutory rates in the early 1980s and the trade negotiations and agreements of the late 1980s provide cases in point.

As the number and proportion of farmers declined, the role of farm organization has seen important changes. When farmers represented a large proportion of the population and the problems of isolation of the farmer were greater, farm organization functioned in the field of general social policy more actively than it does today, for example, in adult education, public broadcasting and health care. Particularly at the federal level, its role in these areas has been reduced, with its work much more generally focused on strictly agricultural concerns. This is less true at the provincial level and even less at the community level.

The Canadian Federation of Agriculture (CFA) is a federation of provincial farmer organizations and commodity groups. The CFA is the only comprehensive umbrella farm organization in Canada. Its membership is comprised of provincial farm organizations, farmer owned co-operatives, commodity associations and national marketing boards. Although the CFA does not always represent the strong views and beliefs held by each individual farmer, it does represent the consensus of the majority. The Canadian farming industry holds very diverse views and interests.

9.2 Agricultural resources

Agriculture is a major industry in Canada. About 67.8 million hectares are cultivated; 46.0 million hectares are improved land. Farm cash receipts were just under \$20.4 billion in 1986 and agricultural and food exports totalled \$8.4 billion, accounting for 7.2% of Canada's total exports.

Including the processing, wholesale and retail sectors, agriculture accounts for approximately 10% of Canada's economic activity.

9.2.1 Agricultural regions

There are four main types of farms in Canada. Livestock farms include those specializing in the

Chart 9.1
Farm land as a percentage of total land, 1986



raising and finishing of beef cattle and hogs; poultry production for meat and eggs; and dairy cattle for the production of milk and other dairy products. Grain farms produce such crops as wheat, barley, corn, oats, flax and canola/rapeseed. Mixed farms produce both grain and livestock. Special crop farms produce vegetables, fruits, potatoes or other root crops, tobacco or forest products. Each region has its specialties, but none is limited to one type of farming.

The Atlantic region includes Newfoundland, Prince Edward Island, Nova Scotia, New Brunswick and the Gaspé district of Quebec. It is hilly, with a covering of relatively fertile soil developed under forest cover. The climate is modified by the sea, but also affected by cold currents from the coast of Labrador and by northern winds. Precipitation averages from 760 to 1 500 mm (millimetres) annually. Mixed farming is general and forage crops support a healthy livestock industry. Small farmers may combine farming with some form of partial employment, including lumbering and fishing.

Newfoundland and the Labrador Coast are isolated from the Maritimes and there is a scarcity of good soil. The region produces all of its egg requirements and a large percentage of other commodities. There are development opportunities in dairy and horticulture.

Farming is the leading industry on Prince Edward Island. Potatoes are the major crop but the land also supports mixed grains, dairying and other livestock enterprises. Small fruits and vegetables are produced.

Nova Scotia's main agricultural areas surround the Bay of Fundy and Northumberland Strait where the soil is fertile and the number of frost-free days provides a long growing season. Dairy farms are very common and there is general and widespread hog, poultry, beef and vegetable production. Strawberry production is increasingly important and Nova Scotia has become the leading province in lowbush blueberry production. The Annapolis Valley is famous for fruit, mainly apples. Several hundred farmers specialize in mink and fox production in the region around Yarmouth, making this area a major source of North American supplies.

New Brunswick produces potatoes and livestock in the upper Saint John River Valley. Special crop farming is predominant in the coastal and central areas of the province. Dairy operations, which are concentrated in southern New Brunswick, and potato farming constitute the majority of commercial farms in the province.

The central region. This lowland area bordering the St. Lawrence River includes the Ottawa Valley and extends through Southern Ontario to Lake Huron. Fertile soils, mostly formed by glacial drift and lake sediment developed under deciduous forest cover, and a mild climate modified by the Great Lakes and the St. Lawrence River, allow varied farming. Precipitation averages from 760 to 1 140 mm a year. This most densely populated part of the country provides large markets for farm produce.

Well over half of Quebec commercial farms are now dairy farms and supply large butter and cheese industries. Livestock farms, specializing in beef cattle, hogs, poultry and egg production, and mixed farms are common. Forage crops account for the largest cultivation and oats and corn are produced for feed. Fruits and vegetables are becoming prime crops. Sugar beets and flue-cured tobacco are also grown and processed.

Ontario has the largest and most diverse agriculture sector, with many specialized crops in southerly regions. It has the largest number of commercial livestock farms and is second in dairy farms. Forage crops account for the largest cultivated area, followed by grain corn, soybeans, mixed grains, winter wheat and barley.

Dairy farms are concentrated in southwestern Ontario, the Bruce Peninsula and eastern Ontario. Beef and hog production are specialties in western Ontario. Poultry and egg production is concentrated in southwestern Ontario while sheep are raised throughout the province. Ontario is a major producer of apples and the Niagara Peninsula grows most of Canada's tender fruit and grapes. Vegetables are grown near most large centres and in the extreme southwest of the province. Maple syrup is a major sideline for some Ontario farmers.

The Prairie region. Manitoba, Saskatchewan and Alberta contain 80% of the farmland in Canada. Long sunny summer days coupled with sufficient precipitation ensure strong healthy growth of high quality grain such as hard red spring wheat — the largest single cereal crop — barley, canola/rapeseed and other grain and oilseed crops. The large beef cattle industry is supported by the native grasslands and by the production of cultivated forage crops and feed grains.

Manitoba, with the highest Prairie rainfall and over 100 frost-free days, has more varied farming. Wheat and other grains predominate but canola/rapeseed and flax are also grown extensively. There is considerable mixed farming, with emphasis on beef cattle. Vegetables, sugar beets and sunflowers are grown in south-central Manitoba and processed locally. Dairy farms are

common around Winnipeg; poultry, hog and beef production are widespread.

Saskatchewan produces 60% of the Canadian wheat crop as well as large quantities of other grains. Canola/rapeseed, mustard and other oilseeds are popular. Livestock (especially hogs and beef cattle), dairy, poultry and egg, and specialty crop production are major contributors to Saskatchewan's agriculture economy. Irrigation is increasing and assists forage and vegetable crops.

Alberta, second to Saskatchewan in wheat production, is the major producer of feed grains and beef cattle. Alberta is also a leading producer of hogs and sheep. In the 1986 Census of Agriculture, Alberta farms reported about 12.5 million hectares under cultivation by approximately 58,000 farmers. About 22% of this land was in wheat, 21% in barley, 5% in oilseed crops and 25% in cultivated forage crops. About 400 000 ha were under irrigation. In the Peace River district, north of latitude 55°, about 8,000 farmers produce wheat, barley, canola/rapeseed, grass and legume seed plus about 4% of the provincial livestock.

The Pacific region. Only 2% of British Columbia's land area is agricultural. Farms, mostly small and highly productive, are concentrated in the river valleys, the southwestern mainland and southern Vancouver Island.

Dairying and livestock, in that order, account for most of the agricultural production. Beef cattle are raised on many farms, particularly in the central and southern interior areas. Dairying and poultry meat and egg production are mainly in the lower Fraser Valley where the population is concentrated. Mixed farming is scattered throughout British Columbia.

British Columbia is Canada's largest apple producer. The Okanagan Valley, where most apples are grown, is also noted for peaches, plums, apricots, cherries and grapes. Raspberries and strawberries are grown in the Fraser Valley and on Vancouver Island, along with other horticultural crops such as tomatoes, sweet corn and potatoes. Vancouver Island's mild climate also permits the production of flowering bulbs.

The northern region. The agricultural area north of latitude 57° consists of parts of northern British Columbia, the Yukon, and the Mackenzie River Valley in the Northwest Territories. Commercial agriculture is not well developed because of the harsh climate and distance to markets. Precipitation varies from light in the northern Yukon to heavy on the mountainous coast of British Columbia. Frosts can occur in any month, but some crops can be grown on well-drained, south-facing slopes. The North is estimated to have 1.3 million

hectares of potentially arable land and large expanses of grazing land, but there are probably fewer than 30 commercial farms in the region. Dairy products, beef cattle, forage crops, feed grains and vegetables are produced for small local markets.

9.2.2 Farm ownership and labour

Most farms are owned by the operating farmers but as farms increase in size more land is being rented. Payment is usually cash or a share of crops or receipts.

Farm families provide most of the labour but experienced workers are often employed on dairy farms, and seasonal workers are hired for harvests. In the West, combine operators often move their machinery with the harvest, starting in the United States and moving into Canada later in the season. Potato harvesters follow the same pattern in the East.

9.2.3 Transportation

Railways are still the dominant means of transportation on the Prairies. Branch line abandonment has been slow and modest since most lines are guaranteed to the year 2000. As an alternative to the railways (especially for short hauls), many farmers utilize the truck mode to get their produce to market. Eggs, poultry, cream, fruits and vegetables go to local markets by road, and milk is generally collected at farms by tank trucks. Commercial farms and co-operatives use trucks for marketing and distributing agricultural products and in delivering supplies.

Water routes supplement these means. The Great Lakes have long been used to ship grain from Thunder Bay to Eastern Canada. Since the opening of the St. Lawrence Seaway in 1959, the Great Lakes/St. Lawrence system has facilitated the movement of bulk commodities by intermediate-sized vessels for eventual export by ocean-going vessels. Churchill is a seasonal port for Prairie grains; Vancouver and Halifax are year-round ports.

9.2.4 Marketing and supplies

Farm product marketing combines private trading, public sales and auctions, and sales under contract and through co-operatives or marketing boards.

Canada's principal livestock markets are at Montreal, Toronto, Winnipeg, Calgary and Edmonton. Most cattle and calves are marketed by auction at public stockyards; some are exported; hogs, sheep and lambs are sold directly to packing houses. Hog sales are usually handled by marketing boards. Canadian marketing

agencies regulate sales of table eggs, broiler hatching eggs, turkeys and chickens.

Provincial marketing agencies, under direction of the Canadian Dairy Commission, regulate fluid milk marketing in terms of quality, prices and deliveries. In all provinces, except Newfoundland, a marketing plan allocates producers a share of the Canadian market for milk used for manufacturing.

The Canadian Wheat Board is responsible for marketing wheat and barley, grown in the Prairie provinces. Ontario wheat is sold through the Ontario Wheat Producers' Marketing Board.

Fruit and vegetables are distributed through fresh and frozen food markets, canneries and other processors. Most produce is grown under a contract or a pre-arranged marketing scheme; marketing boards, producer associations and co-operatives are common. Tobacco is controlled by marketing boards in Ontario and Quebec, soybeans by a board in Ontario, and sugar beets by contracts with refineries in Quebec, Manitoba and Alberta.

Farmers' co-operatives handle or market crops or livestock and supply goods and services needed in farming. Co-operative pool arrangements for farm products guarantee farmers cash advances on deliveries.

Marketing of seed is carried on by private seed companies, farmer-owned co-operatives and seed growers. Seed grades are established by federal regulation. Pedigree seed is produced by members of the Canadian Seed Growers' Association under conditions that ensure purity.

Farm machinery, building materials, fertilizers, agricultural chemicals and other supplies are obtained through commercial and co-operative outlets.

9.3 Statistics on agriculture

The Agriculture Division of Statistics Canada collects, compiles, analyzes, abstracts and publishes statistics relating to agriculture. Data are collected through Censuses, intercensal surveys and administrative records. Intercensal surveys keep data updated while the Census is used as a benchmark and a source from which to draw samples. Primary and secondary statistics on agriculture are published annually, semi-annually, quarterly, monthly and for each Census year.

Agriculture Canada, and various provincial departments and agencies such as the Canadian Grain Commission, the Canadian Wheat Board and the Canadian Dairy Commission, also collect annual and monthly statistics and contribute data

to Statistics Canada. Supplementary annual, quarterly and monthly data are provided by thousands of farmers throughout Canada who send in reports voluntarily. Valuable data are also obtained from dealers and processors who handle agricultural products.

Much of the demand for agricultural statistics is derived from the policy objectives of the food and agriculture sector. Under Canada's Constitution, agriculture is a shared federal/provincial responsibility. The federal government's main focus in this regard is on research, policy, standards, quality assurance and regional development. The provincial governments are involved in research, policy and extension work. To maintain stability within agriculture, the policy focus of both levels of government is to ensure adequate incomes to farmers and high quality, affordable food to consumers. Other policies and programs include regional and resource development and market and trade development. Over 200 agriculturally related organizations in Canada, representing the various facets of agriculture, require agricultural statistics to assist them in their efforts.

The primary objective of the agriculture statistics program of the Agriculture Division of Statistics Canada is to produce the raw data required to aid and improve private and public decision-making concerning the production and marketing of agricultural products, the returns to resources employed in agriculture, and the data concerning environmental issues. In general terms, the division's mandate relates to the farm or primary production level. However, in certain cases, where statistics constitute an integral part of agricultural analysis, that is, supply and disposition analysis, the division conducts surveys to collect the data required. Examples are statistics regarding grain marketing, per capita food consumption and food stocks in cold storage. The mandate has also been interpreted to include not only measurements of the current period but also intentions to produce, for example, seeding and farrowing intentions.

9.3.1 Census of Agriculture, 1986

A Census of Agriculture has been conducted every five years since 1951. Prior to that, from 1871 to 1951, it was conducted every 10 years. From the Census, statistics are compiled on crops, livestock, farm land, labour, capital and many other variables that are significant to the public and private sectors. In 1986, there were 293,089 Census-farms, down from 318,361 in 1981.

Age of Census-farm operators. The proportion of operators by major age groups in 1986 was as

Chart 9.2

Number of Census-farms

Thousands

140

120

100

80

60

40

20

0

Canada

1961 = 480,903

1986 = 293,089

Nfld.

PEI

NS

NB

Que.

Ont.

Man.

Sask.

Alta.

BC



1961



1986

follows: under 35 years, 19.2%; 35-54 years, 46.6%; and 55 years and over, 34.2%. Since 1971, the proportion of operators under 35 years of age had increased to 21.4% in 1981 from 15.3% in 1971 but the proportion declined to 19.2% in 1986.

The proportion of operators between 35 and 54 years of age had been steadily declining through the 1960s and 1970s, and that trend continued in 1986. The proportion of operators aged 55 years or older, which had been declining from 1966 to 1981, increased by 3.5% between 1981 and 1986. This was the first Census in decades in which the number of older operators increased in absolute terms.

Type of organization. In 1986, 99.1% of Census-farms were controlled by farm families. This group included farms that were: individual or family holdings, 82.2%; partnerships with a written agreement, 4.1%; partnerships without a written agreement, 7.6%; and family corporations, 5.2%.

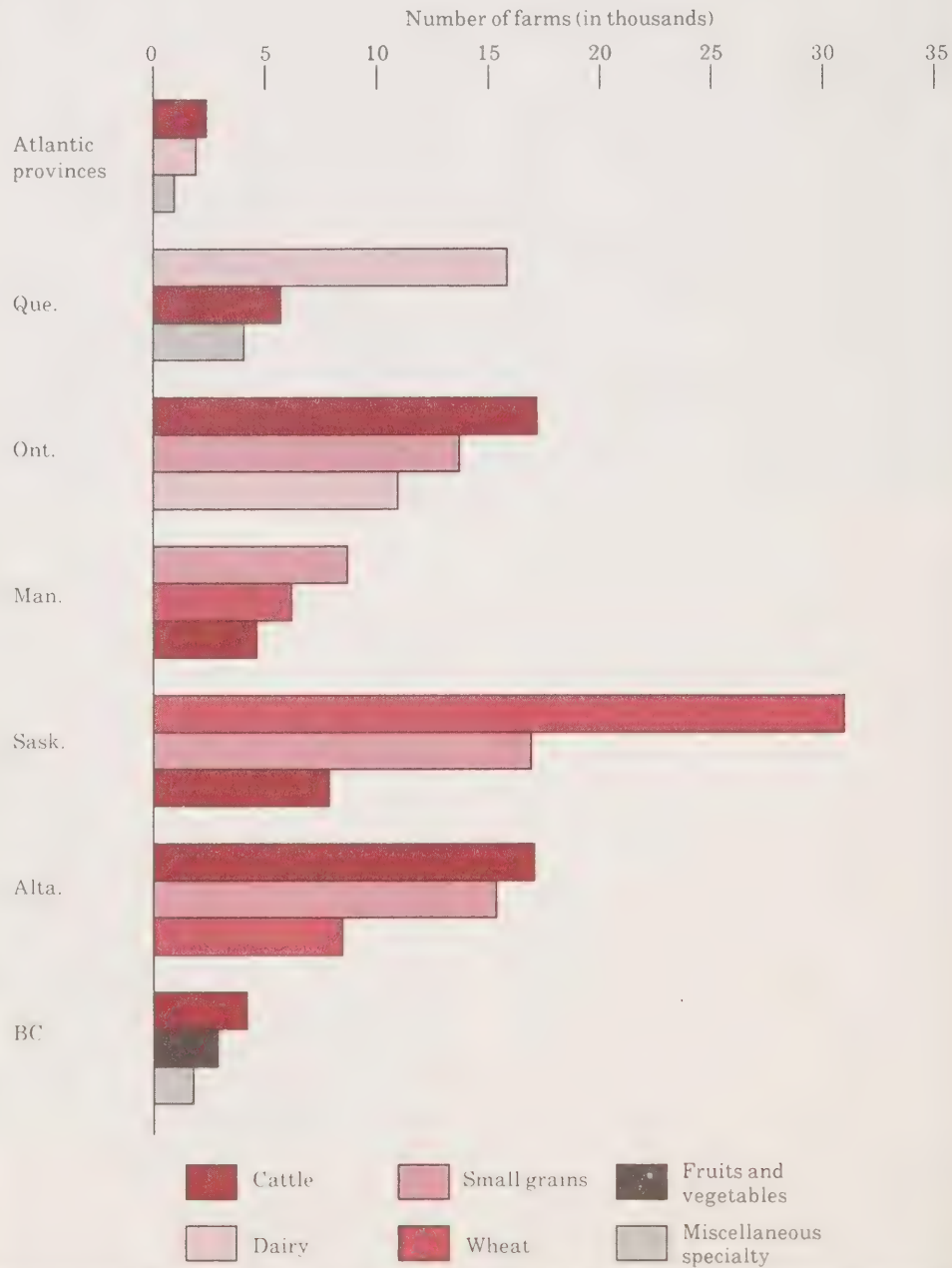
The remaining farms were comprised of non-family corporations, 0.4% and other types, 0.5%. The other types include institutions, community pastures and miscellaneous farms. In 1986, the family controlled farms contributed 94.6% and the non-family corporations, 4.4% of aggregate gross sales.

Use of farm land. Although total land stayed basically unchanged, the area under crops increased. This was partly due to the decline in summerfallow acreage in the Prairies. However, area under crops plus summerfallow acreage also increased at the national level. Each Prairie province registered an increase in area under crops in 1986, compared to the 1981 levels. In Ontario, Quebec and the three Maritime provinces, the area under crops in 1986 was less than 1981 area. In Ontario, the decline was nearly 5%. In 1986, area under crops in Ontario was 3.5 million hectares (8.5 million acres) which was slightly below the level of area under crops reported in 1976. In British Columbia, the area under crops increased 0.5% to 0.57 million hectares (1.4 million acres) in 1986. In Newfoundland, the area under crops in 1986 was 2.8% above the 1981 level.

Land tenure of operator. Over one-third of farm land in Canada was rented in 1986. Farm operators are using land rental as an alternative to ownership at an increasing rate. Rented land accounted for 36.3% of total farm land in 1986, up from 30.0% in 1976.

Size of Census-farms. In 1986, the average size of Census-farms increased to 231.4 hectares (571.8 acres) from 213.5 hectares (527.6 acres) in 1981

Chart 9.3
Census-farms with sales of \$2,500 or more,
classified by major products, 1986



and 202.1 hectares (499.4 acres) in 1976. The average size of farms has been growing since 1921.

Census results also show that 46.8% of Census-farms in Canada were comprised of less than 97.1 hectares (240 acres) in 1986, compared with 48.3% in 1976. In contrast, the proportion of farms equal to or greater than 307.6 hectares (760 acres) rose to 22.6% in 1986 from 18.9% in 1976. The proportion of farms from 97.1 hectares (240 acres) to less than 307.6 hectares (760 acres) declined marginally between 1986 and 1976. However, there were wide variations among provinces.

Fertilizer use. In 1985, fertilizer was applied to 66.1% of Census-farms. They utilized 4.1 million tonnes of commercial fertilizer on 23.1 million hectares (57.2 million acres) which is one-half of all improved land in Canada. For the first time in 1986, Census data were collected on the amount of fertilizer used by type, including dry granular, pressurized liquid or gas (including anhydrous ammonia), non-pressurized liquid and suspensions.

Spraying and dusting. In 1985, 62.0% of Census-farms applied pesticides, an increase of 9.3% from 1980. Spraying and dusting of farm land went up by 63.2% to 27.6 million hectares (68.1 million acres) in the same five-year period.

Irrigation. The number of farms reporting irrigation in Canada increased by 19.9% from 1980 to 1985; the area irrigated increased by 25.4%. The 1986 Census, for the first time, collected data on various irrigation systems across Canada. More detailed analysis of irrigation will now be possible.

Sub-surface drainage. For the first time, the Census of agriculture has collected data on sub-surface drainage, a technology employed most extensively in Eastern Canada. According to the 1986 Census, 38.7% of the improved farm land in Ontario and 28.5% in Quebec was sub-surface (or tile) drained.

Farm machinery. A total of 728,074 tractors were reported on farms, according to the 1986 Census of Agriculture, an increase of 10.7% from 1981. For the first time, Census respondents were asked to report two-wheel-drive and four-wheel-drive tractors separately. Two-wheel-drive tractors accounted for 89.1% and four-wheel-drive, 10.9% of total tractors.

Other farm machine inventories in 1986 compared to 1981 were as follows: farm trucks, up 8.4%; grain combines, down 2.0%; swathers, down 1.4%; pick-up hay balers, down 2.6%; and forage crop harvesters, down 10.7%.

Hired agricultural labour. A total of 141,841 farms reported hired agricultural labour in 1985,

an increase of 23.1% from 1980. Total weeks of hired agricultural labour increased 26.0% between 1980 and 1985.

Sales class. According to the 1986 Census, the number of farms with sales of \$50,000 or over rose to 113,096, an increase of 24.3% from 1981. The bulk of the increase was in the \$100,000 or over sales class (59.8%) while the \$50,000 to \$99,999 sales class increased marginally (0.4%).

Conversely, the number of farms with less than \$50,000 in sales declined to 179,993 in 1986, a decrease of 20.8% from 1981. The largest decrease was recorded in the under \$2,500 sales class (30.8%), followed by \$25,000 to \$49,999 (20.8%), \$2,500 to \$4,999 (19.6%), \$10,000 to \$24,999 (17.1%) and \$5,000 to \$9,999 (14.6%).

Product type. In 1986, farms with sales of \$2,500 or more were classified by product type. The proportion of small grains (excluding wheat farms) at the Canada level was recorded as 22.5% in 1986 which represented the largest increase (3.3%) from 1981. The second largest increase (1.3%) from 1981 was registered for miscellaneous specialty farms, followed by cattle, mixed farms, and fruits and vegetables.

The proportion of wheat farms in 1986 at the Canada level was 18.0%, representing the largest decline (2.6%) from 1981. The second largest decline (2.3%) was noted for dairy farms from 1981, which was followed by field crops (other than small grains) and poultry.

Farm capital. Farm capital is comprised of land and buildings, machinery and equipment, and livestock and poultry. Total capital value in 1986 was \$109,675.7 million, down 15.8% from 1981. Land and buildings declined in value by 22.5% and value of livestock and poultry decreased by 8.0% between 1981 and 1986. In contrast, the value of machinery and equipment increased by 19.0% during the same five-year period.

9.4 Recent developments

9.4.1 International influences

During the 1981-87 period, world trade in agricultural products was stymied by low commodity prices and limited access to markets. This situation developed in the early 1980s and persisted through to 1987. Agricultural trade had shown little or no growth since 1981 and export prices remained well below the levels at the beginning of the decade. Agricultural trade wars resulted, with the European Economic Community (EEC) and the United States as the main participants. The primary cause of these problems

was excess supply relative to the demand for agricultural commodities.

In general, the major industrialized nations export agricultural products, while developing countries are net importers. Exporting countries have, through various policies, encouraged production of agricultural commodities, creating an oversupply of many commodities. Domestic agricultural policies have tried to shield domestic markets from international market forces. High support prices for cereal production in the EEC, under the Common Agriculture Policy (CAP), transformed a deficit position in the 1970s into the present surplus situation. European subsidy programs during the 1980s resulted in large surpluses of butter and milk powder. Surpluses of dairy products resulted in the imposition of milk quotas with heavy penalties for overproduction. Dairy farmers slaughtered their cows and switched to beef production, which had high support prices and no quota restrictions. This resulted in an oversupply of beef. The European Community has exported these surpluses at subsidized prices which drove world prices down and distorted traditional trading relationships.

Other countries have been forced to take action against EEC practices. In 1985, the US introduced the Export Enhancement Program. Up to \$2 billion was available over a three-year period to improve export competitiveness of US grains in selected markets.

Government payments to producers rose as commodity prices fell. In late 1986, the Canadian government announced a payment of \$1 billion to producers of cereal grains and oilseeds. Several countries took measures to restrict agricultural production in order to reduce the burden of public expenditures. The US introduced a levy on the support price of milk and began a diversion payment to encourage producers to reduce their production. The US Food Security Act (1985) included such policy mechanisms as reduced loan rates, reduced acreage programs, paid diversions, and the expanded use of payment-in-kind (PIK) certificates. Recently, the US has proposed a wheat acreage set-aside program to reduce the amount of land under production.

Importing countries have not been able to absorb the oversupply of agricultural commodities. Most importing countries have high levels of foreign debt and the repayment of these debt obligations has reduced their ability to purchase imports. Importing countries themselves rely on export sales of agricultural products and the continuing decline in export prices has adversely affected their foreign exchange earnings.

Growing trade protectionism and uncontrolled international competition have reduced access to markets, and contributed to declining prices.

International developments have created serious problems for Canadian agricultural producers. The growing level of international protectionism has reduced Canada's ability to sell its agricultural products in traditional markets. Several major importing countries have increased their degree of self-sufficiency and reduced their reliance on imports.

The problems of protectionism and unrestricted production have been recognized and major agricultural exporters are beginning to adjust their policies to reflect the new conditions in the international market. Huge government expenditures have caused distortions in trade patterns. As a result, proposals have been put forward supporting free trade and greater reliance on market forces. The 24 member nations of the Organization for Economic Cooperation and Development (OECD) called for an end to the subsidy war between the major exporting nations. The Cairns group of traders, an organization of agricultural exporting countries, quickly affirmed support for the OECD proposals. Major agricultural exporters are attempting to obtain agreement on agricultural subsidies in the General Agreement on Tariffs and Trade (GATT) negotiations. Under such an agreement, participants would stop dumping products at heavily subsidized prices and refrain from establishing new barriers to trade. Limited debt relief has been offered to a few countries. While government support programs are unlikely to be eliminated, greater efforts may be made to ensure that support is given to the groups requiring assistance, without creating distortions in international trade.

9.4.2 Agriculture production trends

International developments have had a significant impact on the Canadian grain sector. However, wheat has continued to be the single-most important commercial crop in Canada and accounted for 51% of Prairie cropland in 1987. Prairie wheat area exceeded 12 million hectares (30 million acres) in all years between 1981 and 1987. Western Canadian farmers have, for the most part, continued to grow the traditional low yielding, high quality wheats for bread and pasta products although, in the early 1980s, some producers switched to higher yielding, medium quality wheat varieties.

Despite depressed prices in the 1980s, Canada has held onto traditional export markets,

maintained grain production in Western Canada and increased corn production in Ontario and Quebec. The latter trend, apparent since the mid-1970s, reduced demand for Prairie barley used for livestock feed by farmers in Central and Eastern Canada.

Canadian grain producers have continued to rely heavily on export markets. In 1987, approximately 86% of Prairie wheat shipments to the commercial elevator system were destined for export. Over the years 1982 to 1987, wheat exports alone ranged from 17.5 to 23.5 million metric tonnes and Canada supplied approximately 20% of the world market. Wheat exports generated \$2.8 billion to \$4.7 billion annually over the same period. All indications are that wheat, barley, canola/rapeseed and flaxseed exports will continue to make an important contribution to Canada's export earnings.

In contrast to grains, where world supply and demand are very important, production of livestock and animal products is much more dependent on domestic or North American factors. Marketings of poultry, eggs and milk are controlled by supply management, and therefore the major part of production is for domestic use. While markets for cattle and pigs are influenced by North American factors, the majority of these animals are destined for consumption within Canada.

In Canada, apparent per capita consumption of red meats, which amounted to 70.1 kg in 1987, has been relatively steady since 1982. Per capita consumption of red meats trended downward until 1981, after reaching a record high of 81.6 kg in 1976. In 1987, apparent per capita consumption of beef was 38.2 kg, comparable to levels prevalent in the late 1960s and early 1970s, while pork consumption was at 27.9 kg per capita, down from a record high of 31.3 kg in 1980.

During the 1981-87 period, per capita consumption of poultry — chicken, stewing hens and turkeys — increased 23%; most of the increase occurred between 1983 and 1987. Higher chicken consumption was the major factor in the increase, with factors such as health concerns, increased availability of chicken in fast-food outlets, and price contributing to the rise in demand. Per capita consumption of broiler chickens and heavy birds increased from 17.0 kg in 1981 to 21.7 kg in 1987. By contrast, per capita consumption of eggs decreased from 18.6 dozen in 1981 to 16.9 dozen in 1987.

The number of pigs on farms in Canada, which had decreased to a low of 5.5 million head in July 1975, climbed to a record high of 10.5 million in

July 1987. In the 1986 Census, the number of farms with pigs declined from 122,479 in 1971 to 36,472 in 1986. The average number of pigs per farm increased dramatically from 66 in 1971 to 268 in 1986, which reflected increased efficiencies and specialization on farms.

In July 1987, the number of cattle and calves on farms in Canada was estimated at 11.7 million head, down slightly from the previous year. The numbers had been declining since their July 1980 peak of 13.4 million head. However, the beef breeding herd showed some evidence of rebuilding; beef cows were up 1% and beef heifers for breeding were up 3% in July 1987, compared to the previous year. Census figures indicated that the average number of cattle and calves per farm increased from 53 in 1971 to 77 in 1986. The number of farms with cattle declined from 248,757 in 1971 to 116,404 farms in 1986.

While total deliveries of milk off farms in 1987 were only 0.5% above 1981 levels, volumes of milk for fluid purposes increased 3.8% from 1981 to 1987. The consumption trend of fluid milk continued away from high-fat (standard) milk; sales declined 22% from 1981 to 1987. By contrast, 2% milk sales increased by 21% and skim milk sales by 66%. In 1987, 2% milk represented 59% of the total consumption of fluid milk and creams, while standard milk accounted for 27% of the total. Increasing consumption of yogurt contributed to a 101% increase in yogurt production from 1981 to 1987; variety cheese production climbed 69% while cheddar cheese output increased by 27%; and butter production dropped by 16%.

9.4.3 Net farm income

Two different measures of net farm income are prepared by the Agriculture Division of Statistics Canada. Realized net farm income is obtained by summing farm cash receipts from farming operations, supplementary payments, and the value of consumption of farm products in farm homes, and deducting farm-operating expenses and depreciation charges. This estimate of net income represents the amount of income, from farming, that farmers have left for living costs, personal taxes and investment.

Total net farm income is obtained by adjusting realized net income to account for changes in livestock and crop inventories on farms during the year. Total net income represents income accruing to farm operators from the production of agricultural products.

From 1981 to 1987, realized net income (in current dollars) increased by 47%, from \$3.8 billion

Chart 9.4
Percentage change of cash receipts from milk
and cream, sold off farms, 1982-87

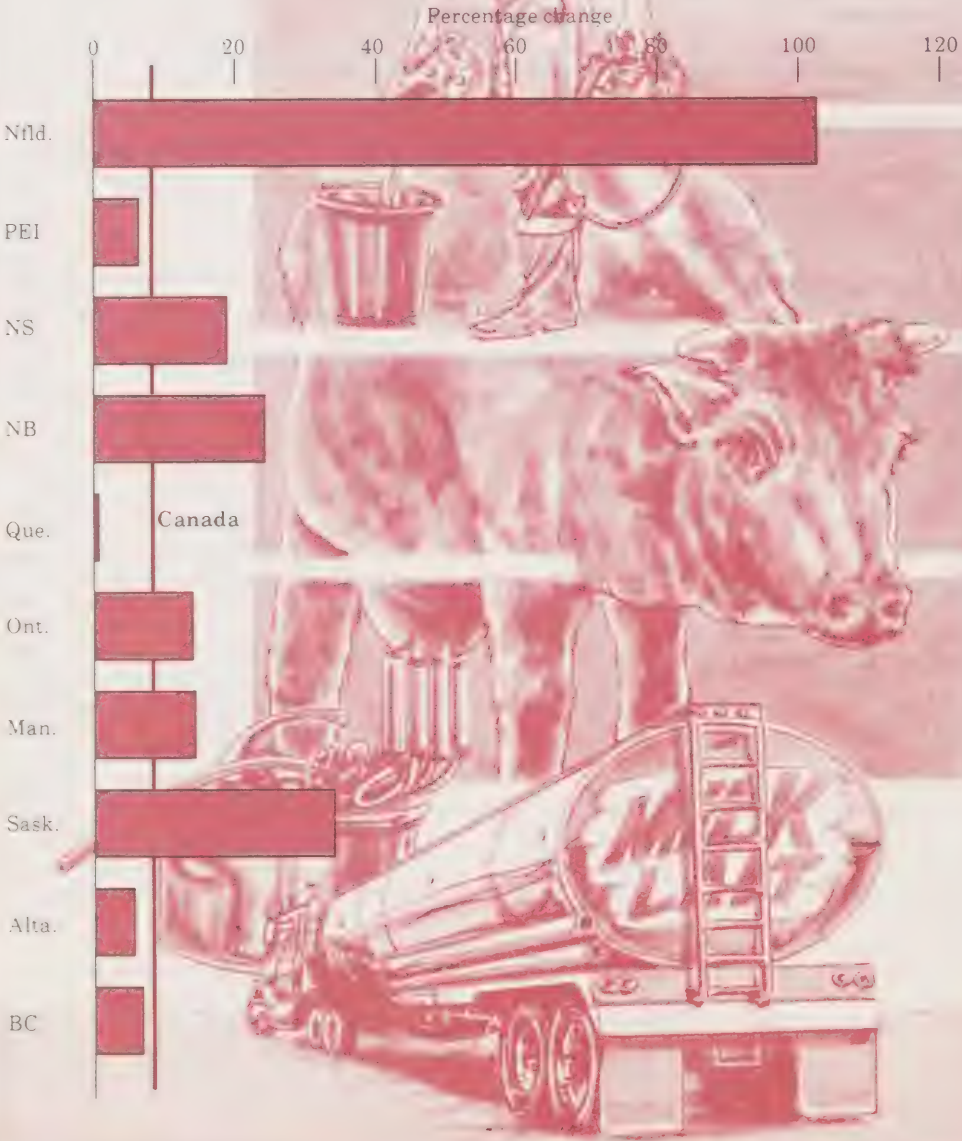
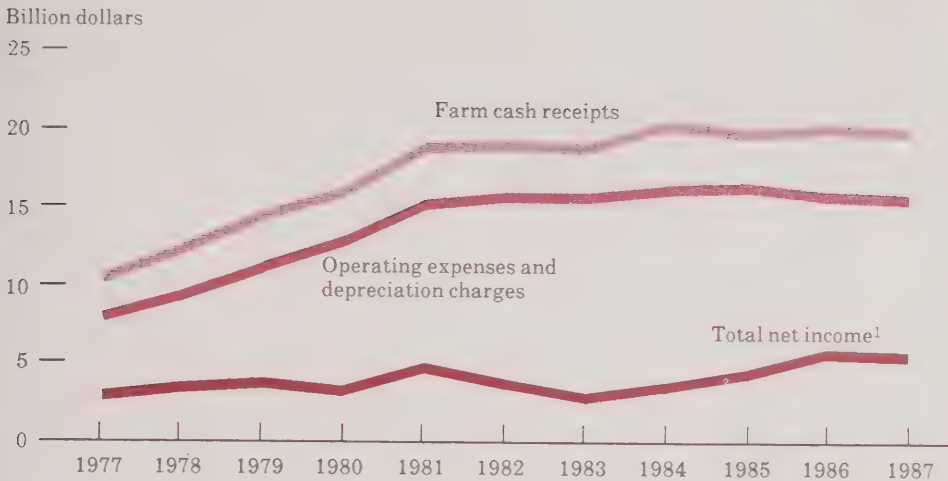


Chart 9.5
Farm income



¹ Total net income = farm cash receipts + supplementary payments + income-in-kind minus operating expenses and depreciation charges + value of inventory change.

to \$5.5 billion. In the same period, total net income rose 18%, from \$4.6 billion to \$5.4 billion. In constant 1981 dollars, realized net income rose 33% between 1981 and 1987 while total net income rose 7% over the same period.

Cash receipts increased 12% from 1981 to 1984, dropped 2% the next year, and showed annual increases of 3% and 2% in the following two years. Farm operating expenses and depreciation charges rose 3% from 1981 to 1985, then dropped 3% in 1986 and 1% in 1987. The decline in 1986 was the first decrease in the annual expenses series since 1957. The last time the series decreased in two consecutive years was in 1932 and 1933.

In 1984, realized net income was \$4.3 billion, up 13% from the 1981 level. Drought conditions in Western Canada in 1985 adversely affected crop receipts. This, combined with higher operating expenses, resulted in a drop in realized net income of 11% in 1985. Realized net income increased 27% in 1986, followed by a further 12% increase in 1987.

Recent gains in realized net income have not resulted from higher cash receipts from market sources, but were due to increases in direct program payments, and decreases in farm operating expenses and depreciation charges.

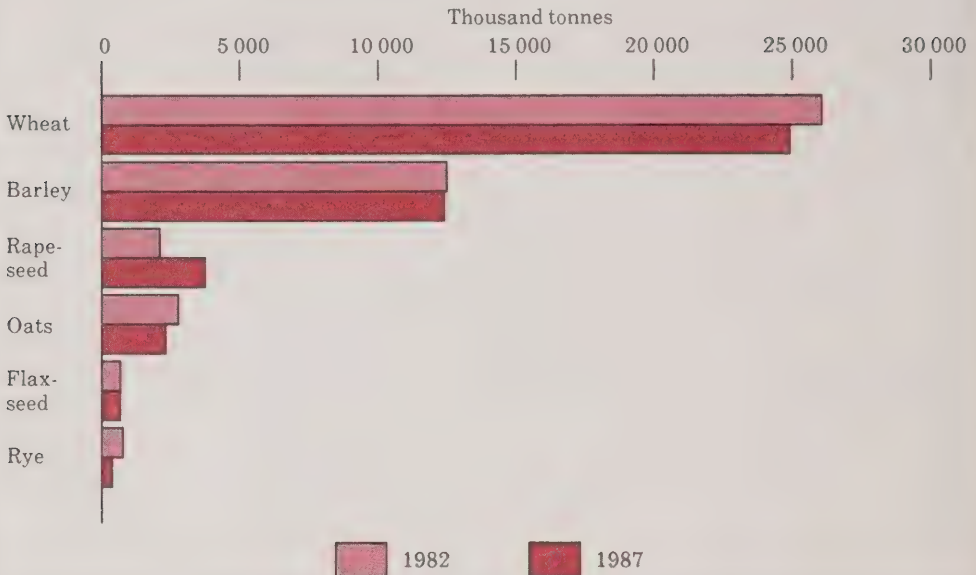
From 1981 to 1987, net direct program payments made under various federal, provincial and municipal programs rose from \$868 million to \$3,423 million.

Total net farm income has shown greater fluctuations than realized net income because of large year-to-year fluctuations in the value of inventory change. From 1981 to 1983, total net income fell 41%, then doubled from 1983 to 1986 and reached a record level. In 1987, there was a 2% drop in total net income.

9.4.4 Farm cash receipts

Estimates of farm cash receipts measure the value of sales resulting from the production and marketing of all agricultural commodities, except for those commodities sold between farms within a province. Also included are any payments, including government payments, made directly to farm operators for specific commodities, or to support production or farm incomes. The prices used to value all marketings are the prices actually received by farm operators. These prices include any bonuses or premiums attributable to a specific product, but are net of storage, transportation, processing and other charges deducted from prices before producers are paid.

Chart 9.6

Production of grain in the Prairie provinces

Farm cash receipts (in current dollars) rose from \$18.7 billion in 1981 to a record of \$20.9 billion in 1987, an increase of 12%. In constant 1981 dollars, receipts were up 1% over the 1981-87 period. Cash receipts increased from 1981 to 1984. In 1985, lower crop receipts resulted in a drop in total cash receipts. Increases in 1986 and 1987 have resulted mainly from increased direct program payments, coupled with moderate increases in receipts for livestock and animal products.

Crop receipts. By 1987, crop receipts had fallen 10% from the record level achieved in 1984. Crop receipts accounted for 42% of total receipts in 1987, compared with 48% in 1984. Declining world prices for grains and oilseeds were mainly responsible for annual decreases in crop receipts of 4%, 1% and 5% in 1985, 1986 and 1987, respectively. In 1987, crop receipts had nearly declined to 1981 levels. In response to lower prices for grains and oilseeds, payments were made to producers under the Western Grain Stabilization Act every year from 1984 to 1987, and reached a record level in 1987 of \$1,395 million.

Livestock and animal products receipts. Receipts from the sale of livestock and animal products increased steadily over the 1983 to 1987 period,

and set new records each year from 1984 to 1987. In 1987, livestock and animal products receipts accounted for 50% of total cash receipts, compared to 48% in 1983.

Receipts for cattle and calves reached a record level of \$3.8 billion in 1987, an increase of 9% over the 1981 level. Hog receipts reached record levels in 1986, at \$2.1 billion, and dropped 0.2% in 1987, but were up 31% compared to 1981. Dairy receipts increased steadily throughout the period, to a level of \$2.9 billion in 1987, up 24% from 1981. Poultry receipts were up 27% from 1981 to 1987, to a level of nearly \$1 billion.

Other cash receipts. In 1987, other cash receipts, which include forest and maple products, dairy supplementary payments, deficiency payments, and other supplementary payments, accounted for 8% of total receipts. At \$1.6 billion, this was more than twice the amount reported for 1981. Other cash receipts increased dramatically in 1987 due to payment of \$1 billion under the 1986 Special Canadian Grains Program.

9.4.5 Farm expenses

Total farm-operating expenses and depreciation charges increased from 1981 to 1985, followed by declines in 1986 and 1987. Expenses peaked

in 1985 at \$16.3 billion, then decreased to \$15.6 billion in 1987, falling almost to 1982 levels.

Farm input prices increased by 10% between 1981 and 1987. Farm operating expenses increased by 9% from 1981 to 1985, then decreased by 5% over the next two years. These drops resulted mainly from decreases in the quantities of many inputs.

Major expense categories which increased from 1981 to 1987 were: wages, pesticides, and interprovincial livestock purchases. Major categories which decreased were: rent, interest, machinery fuel and repairs, fertilizer and feed.

Wage rates for hired farm labour increased by 30% from 1981 to 1987. Total wage expenses rose 38% over the period, as the number of paid employees increased slightly as well. Pesticide expenses went up by 41%, as pesticide prices rose by 26%, and quantities used increased as well. Interprovincial livestock purchase expenses trended downward from 1982 to 1986, then increased substantially in 1987, due to a significant increase in quantities and prices.

Rent expenses increased from 1981 to 1983, were stable from 1983 to 1985, then began to trend downward as lower prices for crops and increased supplies of land, available for rental, began to affect land rental markets. Interest expenses decreased by 31% from 1981 to 1987. This drop resulted from lower interest rates more than offsetting a gradual rising trend in debt outstanding. Total machinery expenses increased 14% from 1981 to 1987, despite a drop of 22% in 1986. Fertilizer expenses peaked in 1985. By 1987, they had fallen 17% below the 1983 level. This was partially attributable to a 9% drop in fertilizer prices. Net feed costs peaked in 1984, then, reflecting lower grain prices and new feed rebate programs, decreased 15% over the next three years.

An important factor influencing farmers' total expenses was the level of direct government rebate payments on farm inputs. Rebates were paid on such expenses as farm property taxes, fuels, interest charges and feed. From 1981 to 1987, the level of total rebate payments on farm inputs increased from \$213 million to \$497 million.

The value of farm capital fell \$26 billion during the seven-year period to \$104 billion in 1987. The decrease was due to a drop in the value of land and buildings, as the value of livestock was constant and the value of machinery increased moderately.

9.5 Other federal services

9.5.1 Agriculture Canada

Responsibilities of the federal agricultural department cover three broad areas: promotional and

regulatory services, assistance programs and research. Promotional and regulatory services apply to crop and livestock improvement, inspection and grading of agricultural products, control of insect pests and diseases of plants and livestock, registration of pesticides and fertilizers, and market development. Assistance programs provide for price stabilization, compensation, and income security in the event of a crop or a farm failure. Research aims at solving practical farm problems by applying scientific research to soil management, agricultural engineering, and crop and animal production. The department also assists farmers through soil conservation and water development projects.

9.5.2 Grains industry

Government involvement in the grains industry predates Confederation and is a record of policies relating to land use and settlements; transportation; grain storage, handling and forwarding; marketing methods and opportunities; income security; and the many ramifications of international competition and the search for international co-operation in the sale of grain. The Grains and Oilseeds Branch of Agriculture Canada has responsibility for co-ordination of the federal government's role in the grains industry.

In August 1987, the Grain Marketing Bureau was transferred from External Affairs to the Grains and Oilseeds Branch to further the co-ordination of international and domestic policies. The branch's National Grain Bureau in Winnipeg collaborates with industry in the development of domestic grain policy. Two semi-autonomous bodies which report to Parliament through federal ministers, the Canadian Grain Commission and the Canadian Wheat Board, have major roles in the Canadian grains industry.

The Canadian International Grains Institute contributes to the maintenance and expansion of markets for Canadian grains and oilseeds and their products. The Institute, which was incorporated in 1972, is located in the Canadian Grain Commission Building in Winnipeg, and is affiliated with the Wheat Board and the Grain Commission. Financial responsibility is shared by the federal government and the Wheat Board. In its classrooms, conference rooms and laboratories, it offers instructional programs to participants from grain purchasing countries and to Canadians associated with the grain industry. The Institute includes an 8.16 tonne, 24-hour-capacity flour mill and a pilot bakery.

The Canada Grains Council which was established in 1969, provides a forum for co-ordination,

consultation and consensus on industry recommendations to government. It co-ordinates activities to increase Canada's share of world markets and for efficient use of grains and grain products in Canada. Membership is open to all non-governmental organizations and associations whose members are engaged in grain production, processing, handling, transportation or marketing. Administrative costs are shared by the federal government and industry members.

The government established Grain 2000, in April 1988, to foster greater industry involvement in the development of national grain policies. Producers and other participants in the grains industry work on contract or interchange assignments with the National Grain Bureau in Winnipeg.

Production. Agriculture Canada conducts research in plant breeding and production methods to improve varieties, yields and quality of marketable grains. The Minister of State for Grains and Oilseeds provides grain and oilseed producers with information on world market conditions, on an annual basis, in March, in advance of spring seeding. Studies on production and market potential are conducted or funded by the agriculture development branch.

Marketing. The Grain Marketing Bureau provides policy advice to the government, and information and trade promotion assistance for grains and oilseeds and their products through contact with the Canadian Wheat Board, other agencies concerned with grain marketing, trade commissioners abroad, and the private trade sector. Trade promotion includes organization of missions and trade fairs in Canada and abroad. The Department of External Affairs provides cost or risk sharing to exporters for projects designed to increase sales of grains and oilseeds, which would not be realized without incentives.

Credit. Canada has been selling grain on credit since 1952. In the 1986-87 crop year, credit sales, which are on terms of three years or less, accounted for 7.5% of Canadian grains and oilseeds exports. The bulk of these sales were of western wheat and barley marketed by the Canadian Wheat Board and financed under the Canadian Wheat Board Act with a government guarantee of repayment. Sales of other grains on credit are insured under the Export Development Act.

Food aid. The Canadian food aid program has expanded from \$2 million in 1962-63 to \$439 million in 1987-88. Most of the food aid sent to about 85 countries consists of wheat and wheat products; corn, canola oil, skim milk powder, pulses and fish are also included. Canada's

minimum annual grain and grain products aid commitment under the Food Aid Convention of the International Wheat Agreement is 600 000 tonnes.

The Prairie Grain Advance Payments Act (PGAPA) provides for cash advances to producers in the Canadian Wheat Board's designated area when quota delivery opportunities are restricted. Advances to grain producers, under the Act, are interest free and are made by the Canadian Wheat Board, using its line of credit with the chartered banks. Interests are repaid through deductions from the sales receipts for their deliveries.

Individual producers may receive up to \$30,000, and partnerships, co-operatives and corporations may receive a maximum of \$90,000.

Western Grain Stabilization Program, based in Winnipeg, protects grain, oilseed and special crop producers, in the Canadian Wheat Board's designated area, by cushioning the effect of sharply reduced cash flow caused by disruptive price, market and production cost factors. By the guarantee that net cash flow from the sale of eligible crops in any one crop year period does not fall below the average net cash flow for the previous five years on an aggregate and per tonne basis, producers are assured a minimum net cash flow level. Net cash flow is the difference between total receipts from the production and sale of the designated cereal, oilseed and special crops and their cash costs of productions.

Program participation is voluntary and its operation is jointly funded by western producers and the federal government. Under 1988 amendments to the Western Grain Stabilization Act, funding provisions require producers to contribute levies ranging from 2% to 4% of their eligible crop proceeds up to an individual maximum of \$60,000 in realized receipts and require the federal government to contribute an amount equal to the producer levy, plus 2%.

9.5.3 Canadian Grain Commission

Established in 1912 as the Board of Grain Commissioners, the Canadian Grain Commission is responsible to the Minister of Agriculture, who reports to Parliament on its activities. The Commission administers the Canada Grain Act, which establishes standards of quality for Canadian grains and regulates grain handling in Canada.

Reporting to the Commission, the supervisor of the Grain Futures Act supervises grain futures trading in Canada. The Grain Appeal Tribunal also reports to the Commission and is responsible for examining appeals on grain grading.

Headquartered in Winnipeg, the Commission has offices in 16 centres across Canada and employs about 800 people.

There are four operating divisions. Quality control of Canadian grains as they move through the handling system is maintained by the inspection division. Grain is officially inspected at licensed terminal and transfer elevators and the treatment of grain is supervised and controlled. Weighing of grain at licensed terminal and transfer elevators is supervised by the weighing division. It audits their physical stocks at regular intervals and investigates excessive overages and shortages in grain receipts or shipments. The grain research laboratory division assesses the quality of new crops, conducts basic and applied research on Canadian grains and oilseeds and supplies technical assistance to marketers of Canadian grains and oilseeds. The economics and statistics division provides documentation to terminal and transfer elevators, conducts economic studies for the Commission and publishes statistics. It issues grain dealer and elevator licences, monitors security provisions related to licensees, and administers the allocation of rail cars to producers who apply for this service.

9.5.4 Canadian Wheat Board

Export sales of Prairie-grown wheat, oats and barley are negotiated by the Canadian Wheat Board, or through grain-exporting companies acting as its agents.

This Board was set up in 1935 as the sole marketing agency for Prairie wheat, and subsequently for oats and barley, sold interprovincially or internationally. Feed grains for domestic use were removed from exclusive Wheat Board marketing in 1974 and have since been traded on the open market. The Wheat Board remains the sole purchaser and seller of Prairie feed grains for export. Other crops, such as rye, rapeseed, flaxseed, buckwheat and mustard are marketed by the private grain trade.

The Board's marketing program is accomplished in two stages. First, grain is delivered by the producer to the local elevator under a quota system to meet market commitments. The quota system allocates delivery opportunities among all grain producers. Second, the grain is moved by rail to large terminals in Eastern Canada, Thunder Bay, Churchill, and the West Coast. Grain is also trans-shipped from Thunder Bay to eastern positions largely by lake vessels. The Wheat Board and the Grain Transportation Agency, another federal agency, jointly co-ordinate the movement

of grain from country elevators to terminals on a weekly basis.

The producer receives payment in two stages. An initial price is established by order-in-council before the start of a crop year; this price, less handling costs at the local elevator and transportation costs to Thunder Bay or Vancouver, is in effect a government-guaranteed floor price. If the Wheat Board, in selling the grain, does not realize this price plus necessary marketing costs, the deficit is borne by the federal treasury; after the end of the crop year when the Board has disposed of all the grain, it distributes any surplus in a final payment to producers.

Under the domestic feed grains policy, a producer delivering feed grains to a country elevator has the option of selling the grain to the Wheat Board or on the open market. In the latter case, the producer will, on delivery, receive the full price in contrast to the Wheat Board system of initial and final payments.

9.5.5 Farm assistance

Federal farm assistance programs help ensure stability of the agriculture industry and the supply of food for Canadians. Price-support programs help producers to secure a fair return for their labour and management, provide stability of income, and help producers to remain in business during times of depressed prices. Crop insurance, through programs operated provincially, with the federal government contributing financially, provides farmers protection against crop losses caused by natural forces such as hail, drought and insects. Availability of credit is important for farmers to improve or expand their operations. Among other assistance programs are those for marketing and feed grain. The assistance programs are administered by Agriculture Canada or by the agencies responsible to the Minister of Agriculture.

The Farm Improvement and Marketing Co-operatives Loans Act (FIMCLA) came into effect February 1, 1988 and replaced the Farm Improvement Loans Act (FILA) which expired in January 1988. FIMCLA is an expanded version of the former FILA.

A key provision of the new program is that it allows guarantees on loans made to co-operatives set up by farmers to process, market and distribute their commodities. These co-operatives may receive a guaranteed loan of up to \$3 million. Under the new Act, the maximum which a borrower may have outstanding is \$250,000. Loans may be repayable over a period up to 10 years for all purposes, except for additional land purchase for which a 15-year term is permitted.

Farm improvement loans must be secured. Borrowers are required to provide 20% of the cost of a purchase or a project from their own resources. The maximum rate of interest on loans is based on the prime lending rate of the chartered banks, plus 1%.

Agricultural Products Board (1951) is empowered to buy, sell, or import agricultural products; to store, transport, and process such products; to sell agricultural products to any country and to make arrangements for their purchase and delivery; or to purchase agricultural products on behalf of any government or agency. The Board can only sell products at a loss when specifically authorized by the Governor-in-Council. Programs may also be taken in support of market stabilization of agricultural commodities in lieu of action under the Agricultural Stabilization Act.

Agricultural Stabilization Board (1958) stabilizes prices of agricultural products to help the industry get fair returns for labour and investment, and to maintain a fair relationship between prices received by farmers and their costs of goods and services. Commodities included are slaughter cattle, hogs, lamb and wool, industrial milk and cream, corn and soybeans, winter and spring wheat, oats and barley produced outside designated areas defined in the Canadian Wheat Board Act. The Governor-in-Council may designate other commodities for support. The Board may stabilize the price of any product by offer to purchase, or by making deficiency payments for the benefit of producers. Stabilizing prices by means of assistance payments has helped balance production and demand. The Act also provides authority for a tripartite cost-shared (federal, provincial and producer) stabilization program.

The Board's operations are financed by parliamentary appropriations for that purpose.

The Crop Insurance Act (1959) provides that the federal government helps the provinces in making all-risk crop insurance available to farmers on a shared-cost basis. Crop insurance can protect the farmer against unforeseen losses. Initiative for establishing crop insurance rests with the provinces. Programs are developed to meet provincial requirements. The federal government shares the risk by providing loans or reinsurance when indemnities greatly exceed premiums and reserves. Farmers pay 50% of total premiums required to make the programs self-sustaining. The remainder is contributed by the federal government if the province elects to pay all administrative costs. Otherwise the provincial and federal government

share administrative costs and the remaining premium equally.

Canadian Livestock Feed Board (1966) is a Crown agency with four main objectives: availability of feed grain to meet the needs of livestock feeders, adequate storage space in Eastern Canada for feed grain needed by livestock feeders, a reasonably stable price of feed grain in Eastern Canada and in British Columbia, and fair equalization of feed grain prices in the domestic market.

The Board may make payments related to the cost of feed grain storage and transportation, the latter payments having been made since 1941. Since April 1967, the freight subsidy has been administered by the Livestock Feed Board. Initially, it was applied only to feed grains produced in the Prairie provinces and designated for domestic livestock consumption in Eastern Canada, British Columbia, and the Yukon and Northwest Territories. It was extended to the movement of Ontario corn and wheat to the Atlantic provinces and Quebec, and to local grains produced within feed grain deficit regions.

The Board monitors transportation costs for feed grain and protein ingredients and plays a major role in freight rate negotiations and freight rate structure in co-operation with farm organizations, trade associations and the railways. Members and staff of the Board meet with producer associations and industry organizations to deal with problems of the feed grain-livestock sector of Canadian agriculture. Research activities focus primarily on economic aspects of animal feed production, utilization, feed grain marketing, transportation and current and potential problem areas.

Farm Credit Corporation (FCC) administers farm loans under the authority of the Farm Credit Act and the Farm Syndicates Credit Act. Its role is to provide financial services to enable Canadian farmers to establish, develop and maintain viable farm enterprises.

Under the Farm Credit Act, the Corporation offers three types of long-term loans: standard farm loans where the applicant must be principally occupied in farming after the loan is made; Shared Risk Mortgages where the borrower and FCC share the costs or benefits of fluctuating interest rates; and loans to beginning farmers who may retain off-farm employment while developing an economic farm business, provided that farming becomes their principal occupation within five years.

The Farm Syndicates Credit Act enables the FCC to lend to groups of three or more farmers, the majority of whom are principally occupied

in farming. The loans are for the shared purchase and use of farm machinery, buildings and installed equipment.

The Farm Debt Review Assistance Program provides assistance to farmers in financial difficulty through participation by the Farm Credit Corporation (FCC) in financial arrangements between farmers and their creditors. Agriculture Canada makes contributions to farmers payable to the FCC in amounts equal to concessions made by the FCC, under arrangements arrived at pursuant to the Farm Debt Review Act.

The Advance Payments for Crops Act (APCA) provides an incentive to producers to store certain designated agricultural products immediately after harvest in order to improve their farm income by marketing over an extended season. The Act applies to all storable crops grown in Canada, except wheat, oats and barley grown in the area covered by the Canadian Wheat Board. This program gives producers an advance payment to help meet their short-term monetary commitments. An individual producer may receive an advance of up to \$30,000; business organizations may receive up to \$90,000 for all crops produced each year. The Minister of Agriculture guarantees these advances through eligible producer organizations that must administer the program on behalf of their members.

Benefits of APCA are: producers receive an interest-free cash advance on their storable crops in order to meet their short-term obligations; dumping of products at harvest time is reduced; returns to producers are improved by selling their product when market conditions are good; and more orderly marketing of the products is achieved.

The Agricultural Products Co-operative Marketing Act (APCMA) is a market development program designed to assist and encourage co-operative marketing of agricultural products. This is accomplished by providing a minimum average price guarantee to a co-operative marketing pool prior to the crop year. The price guarantee is divided into two segments, an initial payment guarantee to producers and a maximum cost guarantee to the co-operative which covers the costs of marketing the crop. At the end of the marketing period for that crop year, if the average price received by the co-operative is less than the level of price guarantee, the government makes payment for the difference to the co-operative.

Crop development fund. Agriculture Canada is helping the private sector and universities in their efforts to broaden Canada's agricultural base.

The objective is to help stimulate the development and acceptance of new crops and varieties, and new more efficient production methods and technologies. It plays a prominent role in bridging the gap between basic research and commercial production.

Examples of complete and ongoing projects, financed in part by the fund, can be found in all regions of Canada. For example, a three-year project in Ontario is determining the feasibility of commercial production of high density cell-tray type tomato transplants. In another project, trials have been conducted, in southern Vancouver Island and the Fraser Valley, to evaluate the commercial viability and establish production methods for kiwi fruit. In addition, the lakeland forage association in Alberta compared the production of forage using three major range improvement methods.

9.6 Provincial services

Provincial departments responsible for agriculture have regional offices and extension programs with qualified professional representatives working in rural centres to provide advice on farm management, farm labour, home design and home economics, education and development for 4-H and youth groups. Advice is available in veterinary services, livestock improvement and crop management.

Engineering services provide advice on rural water and sewer systems, farm machinery and such projects as irrigation and land drainage in the Prairies and in parts of Ontario.

Marketing activities are carried out to expand domestic and foreign markets and encourage increased food processing. Market development programs supplement those of the federal government.

In several provinces, loans, grants and services are available to farmers to enable them to upgrade or expand their operations. Services provided by New Brunswick include the potato seed farm at Bon Accord, marketing seminars for potato shippers and initiatives in the following areas: land improvement and soil conservation; market development; and accelerated adoption of technology for the production and marketing of agricultural products.

Financial and technical assistance is available to agricultural producers in Quebec through programs currently in effect. The conservation of agricultural soil and water resources is one of Quebec's strategic targets. In addition, there is an assistance program for improving the

management of animal wastes which has been in effect since July 25, 1988. This program applies to the construction or improvement of structures for storing solid or liquid manure. Quebec operates two agro-food technology institutes, two food analysis laboratories, two chemistry laboratories, three animal pathology laboratories and six research stations devoted to various types of agro-food production.

In addition to numerous financial assistance programs designed to provide economic stability for Ontario's food producers and processors, the agriculture ministry encourages wise soil and water management through land stewardship and pesticide reduction programs. Laboratories offer a variety of services, ranging from veterinary services for producers and veterinarians to fruit and vegetable grading and inspecting. Ontario offers education and research programs at five agricultural technology colleges.

The Prairie provinces all conduct substantial market development activities, and programs to assist farm families. In Saskatchewan, a broad range of programs and services are provided to the province's rural community of approximately 63,000 farms. Similar programs and services are provided to Manitoba's 27,000 farms. Numerous assistance programs in Saskatchewan include drought assistance programs, fuel rebates, live-stock cash advances and tax credits, and incentives for agricultural diversification. In 1988, the Saskatchewan government initiated the establishment of 52 rural service centres throughout Saskatchewan to provide up-to-date agricultural, business and diversification information.

In Alberta, support is provided to farmers through loan programs, stabilization programs, fuel rebates, input cost reduction and disaster assistance programs. Other longer term government initiatives include research and technology transfer; diversification within Alberta's primary production and food and beverage processing sectors; and soil and water conservation. The Alberta government supports research at various locations: field crops research at Lacombe; special crops and horticultural research at Brooks; environmental studies at Vegreville; irrigation and special crops research at Lethbridge; and food processing research at Leduc.

In British Columbia, the majority of ministry programs are delivered through development and extension, and financial assistance programs. Front line staff work directly with farmers and agri-business in three agricultural regions — North/Central, Southern Interior and South Coastal. They provide advisory and demonstration

services with support from seven ministry specialist branches: Crop Protection, Field and Special Crops, Soils, Animal Industry, Veterinary, Engineering, and Rural Organizations and Services.

9.7 Product and marketing controls

Numerous measures have been enacted by both federal and provincial governments over the years to encourage a productive agricultural sector. Originally emphasis was on production increases and control of pests and diseases. As production and farm specialization increased, problems in marketing began to emerge.

Grading procedures and standards were established to ensure quality but periodic price collapses were caused by bumper crops and intensified by the general inability of producers to bargain on an equitable basis with far fewer buyers.

Voluntary marketing co-operatives were organized to provide bargaining power to producers. All provinces eventually passed legislation for incorporating co-operatives, and most of them provided assistance. Federally, the Agricultural Products Co-operative Marketing Act provided price guarantees to producers willing to market their crops on a pooling-of-returns basis. More information on co-operative organizations is given in Chapter 17.

Co-operative marketing was initially successful, but the voluntary aspect was a weakness. In good times, many members dropped out to make their own deals. Marketing organizations, with the legal power to control all producer output of certain products in certain areas, were a necessity. As a result, marketing control legislation was adopted, providing for various types of boards, agencies and commissions.

9.7.1 Product standards

Federal and provincial departments of agriculture co-operate in enforcing quality standards for various foods. Agriculture Canada has some control over size and types of containers used and the Department of Consumer and Corporate Affairs enforces regulations on weights and measures.

Standards related to health and sanitation in food handling are developed at all levels of government. Examples are provincial and municipal laws pertaining to milk pasteurization, slaughter house inspection and sanitary standards in restaurants. Federal inspection of all meat carcasses traded interprovincially is required by the Department of Agriculture; the Department of Health and Welfare has wide responsibility for food

composition standards; and the Department of Consumer and Corporate Affairs has jurisdiction over advertising.

9.7.2 Marketing controls

The Agricultural Products Co-operative Marketing Act (RSC) 1970, c.A-6) was passed in 1939 to assist orderly marketing by encouraging establishment of pools for selling the product at the optimal time of year to give the producer equal value for product of like grade and quality.

The Act guarantees to the co-operative marketing pool the payment of the initial payment to producers and the processing, carrying and selling costs to a fixed maximum. The amount of the initial payment is set at the discretion of the Minister of Agriculture, taking into account current and estimated market prices. This Act has enabled many farmers to market their crops at a fair return in an organized and systematic manner. All agricultural products, except wheat produced in the area under Canadian Wheat Board jurisdiction, are eligible for such marketing assistance.

The Canadian Dairy Commission, established in 1966, was the first new national marketing agency since the creation of the Canadian Wheat Board, in 1935. The Commission has the power to stabilize the market by offering to buy major dairy products, butter and skim milk powder, at fixed prices and to package, process, store, ship, insure, import, export or sell or otherwise dispose of these and other dairy products purchased by it. The Commission may also pay subsidies to producers of industrial milk and cream. These payments supplement market returns to producers and keep consumer prices at reasonable levels. A producer is eligible for subsidy on shipments covered by his market share quota. The Commission administers an account to cover the cost of export marketing of dairy products. Money for this is collected by provincial milk marketing agencies from producers in all provinces except Newfoundland and remitted to the Canadian Dairy Commission.

A comprehensive milk marketing plan, to balance demand and supply and to generate funds for export assistance, was agreed to by the Canadian Dairy Commission and the milk marketing agencies of Ontario and Quebec in January 1971, establishing a market-sharing quota (MSQ) system for industrial milk and cream and that portion of milk, shipped by fluid producers, which is used for manufacturing purposes. Cream shippers in Quebec, Ontario and Prince Edward Island entered the plan in 1971. Producers in other provinces came under the program in the next three years. The arrangement now applies to all

industrial milk and cream sold in Canada and provides that each producer receives returns related to the target price for shipments up to his market share. The target price is achieved through the offer-to-purchase program which stabilizes markets, plus direct payments to producers. Producer returns for deliveries over market share are related to world prices for surplus dairy products.

Producer marketing boards were introduced during the 1930s to give agricultural producers legal authority under certain conditions to control marketing of their produce. The Natural Products Marketing Act of 1934 attempted to provide this power at the federal level but the courts ruled that the subject was outside federal jurisdiction. Subsequently the Natural Products Marketing (British Columbia) Act, 1936 was found to be within the powers of provincial governments and it has since been used as a model for marketing board legislation in all provinces.

The basic feature which enables marketing boards to control marketing is the compulsory aspect. A new board usually has to be approved by a majority vote of the producers of the product. Then all producers in the designated area are required by law to market their produce under authority of the board. A board's powers may involve negotiating a minimum price or may include setting production or marketing quotas, designating times and places for marketing, or carrying out other functions which may be considered necessary to ensure an orderly and equitable market.

The powers of a producer marketing board, set up by provincial legislation, are limited to trade within the province. The Agricultural Products Marketing Act (RSC 1970, c.A-7), passed in 1949, allows the federal government to delegate powers to a marketing board for interprovincial and export trade, similar to those it holds under provincial authority with respect to intraprovincial trade. Under this Act, the Governor-in-Council grants authority to a provincial marketing board to negotiate marketing and impose and collect levies on commodities traded outside the province — for the use of the board, including the creation of reserves and equalization of returns.

Creation of national marketing agencies or boards was enabled by the federal Farm Products Marketing Agencies Act in January 1972. National agencies may be set up, when producers and provincial authorities desire it, for agricultural commodities which, owing to widespread production in Canada or for other reasons, cannot be effectively marketed under individual provincial boards.

The National Farm Products Marketing Council (NFPMC), established by the Farm Products Marketing Agencies Act in 1972, advises the Minister of Agriculture on all matters relating to marketing agencies. It works with the agencies and provincial governments to promote more effective marketing of the regulated products in inter-provincial and export trade. Agencies for eggs, turkeys and chickens have been in operation for many years and in December 1986, an agency for broiler hatching eggs was established. Membership of the Council includes producer, consumer, labour and agri-business representatives.

9.8 Agricultural education

All regions of Canada have universities and colleges giving undergraduate and postgraduate programs in agricultural science and home economics. Ontario, Quebec and Saskatchewan have degree-granting veterinary colleges.

The Atlantic Veterinary College, a faculty of the University of Prince Edward Island, accepted its first class in September 1986, for the four-year doctor of veterinary medicine program. Students interested in a career in veterinary medicine can receive their preveterinary training at any college or university in the Atlantic provinces. An MSc program in veterinary medicine is also available.

The Nova Scotia Agricultural College has degree-granting status and also provides the first two years in agricultural engineering with the final two years provided by other faculties in Eastern Canada. The college offers several technical programs associated with farming and agri-business and a variety of vocational courses designed to update farmers and other industry personnel.

New Brunswick's community college offers two programs, one in French at Grand Falls and the other in English at Woodstock. They are technical programs, designed to provide a basis for improving farming operations. The college also provides extension courses to producers to keep them aware of new techniques and to help improve their operations.

In Quebec, McGill and Laval universities offer undergraduate and postgraduate programs in agricultural science. The veterinary faculty of the University of Montreal grants degrees. The education department offers a course in farm management and operation at four CEGEPs; courses are offered at Ste-Croix school of agriculture; and 15 school boards provide vocational training in agriculture at the secondary level. The Quebec agriculture, fisheries and food department also operates two institutes of agricultural technology.

Ontario's Ministry of Agriculture and Food offers diploma course programs at the University of Guelph's Ontario Agricultural College, and at five colleges of agricultural technology in Kemptville, Alfred, Centralia, Ridgeway and New Liskeard.

The faculty of agriculture, University of Manitoba, offers a four-year course leading to a Bachelor of Science in agriculture and a two-year course leading to a diploma in agriculture. The university also has an extensive program for graduate studies in agricultural sciences.

The University of Saskatchewan's College of Agriculture, in Saskatoon, offers programs leading to a Bachelor of Science in Agriculture, Master of Science, and PhD. The college also offers a three-year diploma program. All traditional aspects of agricultural production are studied as well as key policy issues facing the industry today, such as international trade, marketing, and transportation. In addition, the college operates many associated institutes and centres and administers approximately 2 800 ha (7,000 acres) of research land. Saskatchewan's four technical institutes and the larger urban community colleges were recently merged to form the Saskatchewan Institute of Applied Science and Technology. The institute provides various courses relating to agriculture at the Wascana campus in Regina and Kelsey campus in Saskatoon.

Alberta has three agricultural colleges, Fairview, Olds and Lakeland (Vermilion campus), offering a broad range of diploma programs. Under the module approach in courses, students may enter credit programs at a variety of times and locations. Non-credit short courses focus on specific agricultural activities. In addition, Lethbridge Community College offers a range of agricultural programs and courses.

A green certificate program, with on-the-job and classroom training for farm workers and farm managers, is a joint project of farmers; Alberta departments of agriculture, and career development and employment; the three agricultural colleges; and Lethbridge Community College.

Several unusual college programs, such as turfgrass management and floriculture, attract students from other provinces. The colleges participate in interprovincial and international agricultural education under exchange and world youth programs. Curricula have been expanded to meet both manpower needs and diversified interests of rural communities.

Public and private colleges in Alberta offer one or two years of university-transfer courses

applicable toward degree programs in agriculture and veterinary medicine.

The University of Alberta's faculty of agriculture and forestry offers both undergraduate and graduate programs in agriculture. While the undergraduate program focuses on general aspects of agriculture, the masters and doctoral programs concentrate on agricultural specialties. The university is also noted for the research it conducts in support of the agricultural industry.

The University of British Columbia offers courses in agricultural specialties leading to a four-year bachelor of science degree in agriculture, and a graduate studies program. Fraser Valley

College at Chilliwack offers a two-year diploma course in agricultural technology. It is designed to prepare students to become successful managers, operators or employees in all areas of the agriculture industry. Northern Lights College at Dawson Creek also offers the first year of this technology program which is transferable to Fraser Valley College. In addition, Northern Lights College offers a full range of agricultural courses leading to a college certificate. There are several institutions that offer a one-year horticultural program and Capilano College in Vancouver offers a two-year program in greenhouse technology.

Sources

9.1 The Canadian Federation of Agriculture.

9.2 Policy Branch, Agriculture Canada; Communications Branch, Agriculture Canada.

9.3, 9.4 Agriculture Division, Statistics Canada.

9.5 Communications Branch, Agriculture Canada; Policy Branch, Agriculture Canada; Grains and Oilseeds Branch, Agriculture Canada; Grain Marketing Bureau, Agriculture Canada; Canadian Grain Commission; Agricultural Stabilization Board; Canadian Livestock Feed Board; Farm Credit Corporation.

9.6 Supplied by the respective provincial agriculture departments.

9.7 Agriculture Development Branch, Agriculture Canada; Canadian Dairy Commission; National Farm Products Marketing Council.

9.8 Supplied by the respective provincial agriculture departments.

FOR FURTHER READING

Selected publications from Statistics Canada

- Farming Facts, annual. 21-522
- Agriculture Economic Statistics, 1926-84, 106 p., 1989. 21-603
- Fruit and Vegetable Production, monthly. 22-003
- Cereals and Oilseeds Review, monthly. 22-007
- Grain Trade of Canada, annual. 22-201
- Greenhouse Industry, annual. 22-202
- The Dairy Review, monthly. 23-001
- Production of Poultry and Eggs, annual. 23-202
- Livestock and Animal Products Statistics, annual. 23-203
- Wool Production and Supply, annual. 23-205
- Production and Value of Honey and Maple Products, annual. 23-211
- Agriculture, 1986 Census, 11 volumes, 1987. 96-102 to 96-112

More information about these publications is available from Statistics Canada. See Appendix F for a complete list of Statistics Canada offices.

TABLES

.. not available
 ... not appropriate or not applicable
 — nil or zero
 -- too small to be expressed

e estimate
 p preliminary
 r revised
 certain tables may not add due to rounding

9.1 Net income of farm operators from farming operations, by item, 1983-87 (million dollars)

Item	1983	1984 ^r	1985 ^r	1986 ^r	1987
1. Cash receipts from farming operations	18,708.1	20,277.1	19,781.8	20,113.5	19,883.4
2. Income in kind	260.5	265.8	251.0	252.1	245.1
3. Supplementary payments	8.1	54.0	140.4	374.3	999.9
4. Realized gross income (1 + 2 + 3)	18,976.7	20,596.9	20,173.3	20,739.9	21,128.3
5. Operating and depreciation charges	15,661.7	16,249.7	16,287.9	15,799.3	15,609.4
6. Realized net income (4-5)	3,315.0	4,347.2	3,885.4	4,940.7	5,518.9
7. Value of inventory changes	-614.8	-964.7	447.2	617.7	-93.5
8. Total gross income (4 + 7)	18,361.9	19,632.2	20,620.4	21,357.7	21,034.8
9. Total net income (8-5)	2,700.2	3,382.5	4,332.6	5,558.4	5,425.4

9.2 Net income of farm operators from farming operations, by province, 1983-87 (million dollars)

Province	1983	1984 ^r	1985 ^r	1986 ^r	1987
Newfoundland	7.8	10.9	10.2	13.5	14.7
Prince Edward Island	40.7	55.5	36.9	44.9	70.4
Nova Scotia	44.9	61.8	70.7	77.8	104.5
New Brunswick	39.7	61.3	54.5	61.3	82.9
Quebec	591.2	836.7	932.7	1,034.9	1,048.7
Ontario	898.1	1,109.0	966.3	1,362.3	1,517.2
Manitoba	248.7	343.9	359.6	514.3	555.5
Saskatchewan	753.6	1,058.3	692.8	783.4	1,000.2
Alberta	557.7	638.6	536.4	768.8	822.7
British Columbia	132.7	171.2	225.3	279.6	302.1
Canada	3,315.0	4,347.2	3,885.4	4,940.7	5,518.9

9.3 Total farm cash receipts, by province, 1983-87 (million dollars)

Province	1983	1984 ^r	1985 ^r	1986 ^r	1987
Newfoundland	35.8	41.4	43.0	46.2	48.8
Prince Edward Island	175.8	195.2	178.6	188.5	213.4
Nova Scotia	234.7	256.8	258.6	266.6	290.6
New Brunswick	197.1	227.6	225.7	225.4	247.7
Quebec	2,736.4	3,057.5	3,110.5	3,225.3	3,246.1
Ontario	4,995.7	5,329.3	5,146.3	5,454.6	5,483.6
Manitoba	1,769.7	1,941.5	1,993.5	2,086.2	2,073.1
Saskatchewan	3,965.0	4,362.8	4,101.4	4,138.3	4,237.3
Alberta	3,711.1	3,956.3	3,845.1	3,792.5	3,970.7
British Columbia	895.0	962.7	1,019.5	1,064.1	1,072.1
Canada	18,716.2	20,331.1	19,922.2	20,487.8	20,883.2

9.4 Farm cash receipts, by source, Canada, 1983-87 (million dollars)

Item	1983	1984 ^f	1985 ^f	1986 ^f	1987
Crops					
Wheat	3,743.1	3,758.5	2,499.8	2,462.1	2,533.4
Wheat, Canadian Wheat Board payments	510.6	440.3	569.9	369.5	29.0
Oats	55.7	64.3	54.2	49.2	48.2
Oats, Canadian Wheat Board payments	2.1	1.9	1.0	1.5	1.2
Barley	827.8	666.4	531.8	745.2	484.2
Barley, Canadian Wheat Board payments	86.1	29.2	145.3	44.8	21.7
Western Grain Stabilization payment	—	222.9	521.8	858.7	1,395.5
Crop insurance payments	361.7	456.0	604.1	553.2	359.5
Canadian Wheat Board cash advances	297.1	237.4	317.4	646.9	564.3
Canadian Wheat Board cash advance repayments	-305.6	-291.8	-189.4	-462.4	-595.4
Deferred grain receipts	-837.4	-791.5	-496.0	-430.9	-433.9
Liquidation of deferred grain receipts	706.5	837.4	791.5	496.0	430.9
Rye	67.2	56.7	28.9	20.8	20.4
Flaxseed	170.3	156.5	193.9	140.4	109.3
Canola/rapeseed	736.5	940.9	899.6	660.3	697.3
Soybeans	243.2	209.2	231.7	242.1	256.3
Corn	597.9	575.4	596.9	406.0	404.2
Sugar beets	45.4	31.3	12.3	17.7	21.5
Potatoes	280.4	311.3	271.8	277.0	345.6
Fruits	269.9	260.5	304.3	317.9	332.5
Vegetables	463.0	518.9	540.3	587.4	632.1
Floriculture and nursery	303.4	352.8	369.1	401.5	444.3
Tobacco	290.5	390.2	150.4	451.9	257.3
Other crops	266.3	402.1	470.1	445.9	451.0
Total, crops	9,181.5	9,836.8	9,420.6	9,302.8	8,810.0
Livestock and products					
Cattle and calves	3,411.0	3,544.6	3,584.9	3,583.9	3,757.3
Hogs	1,713.5	1,873.4	1,823.8	2,124.6	2,119.7
Sheep and lambs	24.6	29.2	29.7	35.8	33.5
Dairy products	2,443.9	2,696.2	2,718.3	2,812.2	2,873.8
Poultry	766.6	889.3	901.4	942.6	986.9
Eggs	483.2	511.9	508.5	488.0	487.0
Other livestock and products	173.1	190.8	187.4	156.9	206.2
Total, livestock and products	9,015.9	9,735.3	9,754.1	10,144.1	10,464.5
Forest and maple products	98.4	99.6	118.0	142.5	134.1
Dairy supplementary payments	265.6	280.8	282.1	276.6	279.7
Deficiency payments	28.1	137.7	15.8	30.5	123.2
Provincial income stabilization program	118.5	186.8	191.2	216.9	71.9
Total, cash receipts (excluding supplementary payments)	18,708.1	20,277.1	19,781.8	20,113.5	19,883.4
Supplementary payments	8.1	54.0	140.4	374.3	999.9
Total, cash receipts	18,716.2	20,331.1	19,922.2	20,487.8	20,883.2

9.5 Harvested area and production of field crops, by province, 1984-87

Field crop and province	Area ('000 ha)				Production ('000 t)			
	1984 ^f	1985 ^f	1986 ^f	1987	1984 ^f	1985 ^f	1986 ^f	1987
Wheat								
Prince Edward Island	3.2	4.0	4.7	5.2	10.7	13.1	16.6	18.5
Nova Scotia	2.4	2.0	2.6	2.8	7.8	6.4	8.7	11.5
New Brunswick	3.6	3.6	3.9	4.2	8.6	12.2	11.7	14.0
Quebec	37.0	47.0	53.6	65.0	120.0	164.0	166.0	183.0
Ontario	216.5	224.1	290.8	190.6	827.5	995.5	1 031.4	633.7
Winter wheat	206.0	212.0	260.0	138.0	797.0	953.9	947.0	484.0
Spring wheat	10.5	12.1	30.8	52.6	30.5	41.6	84.4	149.7
Manitoba	1 801.2	1 962.5	2 003.3	1 963.2	3 742.3	5 226.0	4 477.5	3 946.5
Saskatchewan	8 094.0	8 357.0	8 765.0	8 256.0	11 485.0	12 854.0	18 370.0	15 241.0
Alberta	2 954.0	3 076.0	3 075.0	2 942.0	4 883.0	4 899.0	7 212.0	5 796.0
British Columbia	49.0	53.0	40.5	44.5	103.0	82.0	84.0	106.0
Total, wheat	13 160.9	13 729.2	14 239.4	13 473.5	21 187.9	24 252.2	31 377.9	25 950.2

9.5 Harvested area and production of field crops, by province, 1984-87 (continued)

Field crop and province	Area ('000 ha)				Production ('000 t)			
	1984 ^f	1985 ^f	1986 ^f	1987	1984 ^f	1985 ^f	1986 ^f	1987
Oats								
Prince Edward Island	12.1	11.3	11.0	9.7	26.8	26.8	28.2	23.0
Nova Scotia	7.9	7.5	6.6	6.7	17.9	14.5	15.3	13.3
New Brunswick	14.2	14.2	13.1	12.1	25.4	32.4	27.6	25.9
Quebec	165.0	150.0	101.0	103.0	360.0	360.0	224.0	232.0
Ontario	121.0	113.0	99.0	111.0	277.0	291.0	230.0	259.0
Manitoba	223.0	194.0	182.0	182.0	432.0	494.0	463.0	416.0
Saskatchewan	304.0	304.0	324.0	324.0	432.0	555.0	756.0	709.0
Alberta	465.0	445.0	526.0	486.0	956.0	925.0	1 450.0	1 249.0
British Columbia	24.3	24.3	24.3	28.3	49.0	37.0	57.0	68.0
Total, oats	1 336.5	1 263.3	1 287.0	1 262.8	2 576.1	2 735.7	3 251.1	2 995.2
Barley								
Prince Edward Island	21.4	23.9	27.5	26.7	55.0	71.0	87.0	85.0
Nova Scotia	4.9	4.9	5.2	5.3	14.1	11.6	14.6	16.3
New Brunswick	7.7	8.5	10.6	10.5	16.5	27.4	30.0	34.8
Quebec	135.0	142.0	172.0	174.0	400.0	477.0	515.0	457.0
Ontario	192.0	210.0	239.0	239.0	615.0	755.0	771.0	784.0
Manitoba	728.0	749.0	627.0	688.0	1 938.0	2 526.0	1 851.0	1 938.0
Saskatchewan	1 295.0	1 416.0	1 437.0	1 538.0	2 460.0	3 636.0	3 941.0	3 919.0
Alberta	2 104.0	2 125.0	2 246.0	2 266.0	4 638.0	4 768.0	7 185.0	6 586.0
British Columbia	69.0	71.0	65.0	57.0	142.0	115.0	174.0	137.0
Total, barley	4 557.0	4 750.3	4 829.3	5 004.5	10 278.6	12 387.0	14 568.6	13 957.1
Fall rye								
Nova Scotia	1.2	1.1	—	—	3.8	3.2	—	—
Ontario	32.4	26.3	23.1	19.8	76.2	66.0	50.3	38.1
Manitoba	87.0	77.0	29.1	26.3	193.0	165.0	58.0	46.0
Saskatchewan	138.0	142.0	146.0	154.0	203.0	180.0	251.0	218.0
Alberta	60.7	61.0	68.8	72.8	112.0	94.0	173.0	127.0
British Columbia	4.0	4.0	3.6	4.0	9.4	7.6	7.6	7.6
Total, fall rye	323.3	311.4	270.6	276.9	597.4	515.8	539.9	436.7
Spring rye								
Manitoba	1.6	1.2	1.9	—	2.8	2.3	3.0	—
Saskatchewan	20.2	20.2	24.3	20.2	26.7	25.4	35.6	30.5
Alberta	18.2	20.2	18.2	16.2	25.4	25.4	30.5	25.4
Total, spring rye	40.0	41.6	44.4	36.4	54.9	53.1	69.1	55.9
All rye								
Nova Scotia	1.2	1.1	—	—	3.8	3.2	—	—
Ontario	32.4	26.3	23.1	19.8	76.2	66.0	50.3	38.1
Manitoba	88.6	78.2	31.0	26.3	195.8	167.3	61.0	46.0
Saskatchewan	158.2	162.2	170.3	174.2	229.7	205.4	286.6	248.5
Alberta	78.9	81.2	87.0	89.0	137.4	119.4	203.5	152.4
British Columbia	4.0	4.0	3.6	4.0	9.4	7.6	7.6	7.6
Total, all rye	363.3	353.0	315.0	313.3	652.3	568.9	609.0	492.6
Peas								
Manitoba	44.5	40.5	58.7	72.8	81.6	100.7	103.4	144.2
Saskatchewan	24.3	28.3	66.8	153.8	36.7	57.2	119.7	250.4
Alberta	5.7	5.7	5.9	26.3	12.8	10.9	15.2	47.6
Total, peas	74.5	74.5	131.4	252.9	131.1	168.8	238.3	442.2
Beans								
Ontario	30.4	36.4	43.7	56.7	45.1	58.5	41.8	115.7
Total, beans	30.4	36.4	43.7	56.7	45.1	58.5	41.8	115.7
Soybeans								
Quebec	—	—	4.4	6.5	—	—	10.0	14.5
Ontario	405.0	405.0	380.0	453.0	917.0	1 012.0	950.0	1 252.0
Total, soybeans	405.0	405.0	384.4	459.5	917.0	1 012.0	960.0	1 266.5
Buckwheat								
Quebec	6.5	7.3	8.7	11.3	10.0	11.0	13.5	15.0
Ontario	—	—	5.7	6.2	—	—	4.9	8.9
Manitoba	28.3	12.1	21.9	16.0	13.1	10.7	20.2	20.2
Total, buckwheat	34.8	19.4	36.3	33.5	23.1	21.7	38.6	44.1

9.5 Harvested area and production of field crops, by province, 1984-87 (continued)

Field crop and province	Area ('000 ha)				Production ('000 t)			
	1984†	1985†	1986†	1987	1984†	1985†	1986†	1987
Mixed grains								
Prince Edward Island	31.2	29.1	27.1	25.1	82.0	80.0	82.0	73.0
Nova Scotia	1.8	1.6	1.2	—	4.6	3.3	2.8	—
New Brunswick	1.4	2.0	1.7	—	2.9	5.1	3.9	—
Quebec	45.0	40.0	30.5	28.0	128.0	130.0	83.0	75.0
Ontario	255.0	239.0	217.0	219.0	743.0	753.0	613.0	635.0
Manitoba	44.5	40.5	32.4	32.4	104.0	112.0	82.0	82.0
Saskatchewan	24.3	28.3	20.2	24.3	36.7	53.1	49.0	55.1
Alberta	57.0	57.0	51.0	61.0	133.0	125.0	163.0	163.0
British Columbia	1.6	1.6	1.7	1.6	3.9	3.3	4.5	4.1
Total, mixed grains	461.8	439.1	382.8	391.4	1 238.1	1 264.8	1 083.2	1 087.2
Flaxseed								
Manitoba	425.0	425.0	417.0	324.0	439.0	559.0	572.0	406.0
Saskatchewan	263.0	283.0	304.0	243.0	224.0	310.0	406.0	290.0
Alberta	32.4	32.4	34.4	24.3	30.5	27.9	48.3	33.0
Total, flaxseed	720.4	740.4	755.4	591.3	693.5	896.9	1 026.3	729.0
Canola/rapeseed								
Ontario	11.3	22.3	37.6	16.2	20.9	44.9	73.5	29.5
Manitoba	486.0	405.0	405.0	405.0	544.0	635.0	578.0	585.0
Saskatchewan	1 295.0	1 174.0	1 020.0	1 052.0	1 429.0	1 542.0	1 497.0	1 542.0
Alberta	1 214.0	1 133.0	1 133.0	1 153.0	1 361.0	1 247.0	1 588.0	1 633.0
British Columbia	65.0	49.0	44.5	44.5	57.0	29.0	50.0	57.0
Total, canola/rapeseed	3 071.3	2 783.3	2 640.1	2 670.7	3 411.9	3 497.9	3 786.5	3 846.5
Sunflower seed								
Manitoba	68.8	48.6	23.1	28.3	79.4	59.0	33.1	44.5
Saskatchewan	10.5	3.2	3.0	6.1	5.4	2.7	3.2	7.9
Total, sunflower seed	79.3	51.8	26.1	34.4	84.8	61.7	36.3	52.4
Mustard seed								
Manitoba	16.2	12.1	14.2	6.1	13.6	15.0	17.2	7.7
Saskatchewan	102.0	101.0	142.0	85.0	81.6	95.3	176.9	100.2
Alberta	22.3	24.3	28.3	22.3	17.2	15.0	32.7	24.5
Total, mustard seed	140.5	137.4	184.5	113.4	112.4	125.3	226.8	132.4
Shelled corn								
Nova Scotia	2.2	2.2	2.0	1.2	10.2	7.4	4.2	6.4
Quebec	210.0	225.0	234.4	228.0	1 290.0	1 420.0	1 130.0	1 410.0
Ontario	858.0	850.0	741.0	745.0	5 207.0	5 436.0	4 699.0	5 461.0
Manitoba	73.0	40.5	13.8	20.2	236.0	76.0	61.0	109.0
Alberta	6.1	5.7	3.0	4.9	34.3	30.5	17.3	28.4
Total, shelled corn	1 149.3	1 123.4	994.2	999.3	6 777.5	6 969.9	5 911.5	7 014.8
Potatoes								
Newfoundland	0.3	0.2	0.2	0.2	4.0	4.0	4.0	3.0
Prince Edward Island	29.1	27.7	26.0	26.7	862.0	794.0	801.0	718.0
Nova Scotia	1.7	1.7	1.5	1.7	39.0	36.0	36.0	40.0
New Brunswick	21.9	22.3	19.5	20.0	544.0	701.0	517.0	662.0
Quebec	17.5	17.3	17.3	18.0	378.0	410.0	368.0	410.0
Ontario	15.5	14.6	13.0	14.6	332.0	335.0	297.0	307.0
Manitoba	17.6	17.2	18.1	18.2	286.0	367.0	350.0	426.0
Saskatchewan	1.3	1.5	1.6	1.5	27.0	39.0	34.0	34.0
Alberta	8.2	7.9	8.9	9.1	209.0	212.0	263.0	286.0
British Columbia	3.6	3.6	3.1	3.4	93.0	96.0	91.0	109.0
Total, potatoes	116.7	114.0	109.2	113.4	2 774.0	2 994.0	2 761.0	2 995.0
Tame hay								
Newfoundland	3.4	3.4	3.7	3.8	13.6	13.8	16.3	13.0
Prince Edward Island	50.6	50.2	51.4	55.4	255.0	242.0	242.0	286.0
Nova Scotia	68.8	68.8	68.4	69.0	370.0	361.0	386.0	354.0
New Brunswick	69.6	68.8	69.2	70.0	343.0	370.0	323.0	372.0
Quebec	971.0	971.0	974.7	986.0	5 160.0	5 160.0	6 100.0	6 500.0
Ontario	1 020.0	1 012.0	1 012.0	1 032.0	6 973.0	6 895.0	7 624.0	7 711.0
Manitoba	526.0	546.0	587.0	627.0	2 087.0	2 177.0	3 084.0	2 903.0
Saskatchewan	728.0	728.0	753.0	809.0	2 087.0	2 177.0	2 812.0	2 540.0
Alberta	1 578.0	1 578.0	1 599.0	1 760.0	6 350.0	4 627.0	7 893.0	8 165.0
British Columbia	299.0	308.0	320.0	340.0	1 724.0	1 406.0	1 724.0	1 996.0
Total, tame hay	5 314.4	5 334.2	5 438.4	5 752.2	25 362.6	23 428.8	30 204.3	30 840.0

9.5 Harvested area and production of field crops, by province, 1984-87 (concluded)

Field crop and province	Area ('000 ha)				Production ('000 t)			
	1984 ^r	1985 ^r	1986 ^r	1987	1984 ^r	1985 ^r	1986 ^r	1987
Fodder corn								
Prince Edward Island	1.6	1.6	1.4	—	45.0	45.0	36.0	—
Nova Scotia	2.5	2.4	2.4	2.1	77.0	65.0	70.0	59.0
New Brunswick	1.4	1.2	1.0	—	48.0	37.0	27.0	—
Quebec	81.3	73.0	61.3	58.0	2 900.0	2 600.0	1 800.0	2 000.0
Ontario	219.0	206.0	190.0	162.0	6 305.0	5 848.0	5 444.0	5 806.0
Manitoba	18.2	16.2	12.9	10.1	245.0	254.0	272.0	209.0
Alberta	9.7	9.3	8.9	7.3	345.0	336.0	327.0	227.0
British Columbia	10.5	10.9	11.3	10.9	327.0	345.0	381.0	390.0
Total, fodder corn	344.2	320.6	289.2	250.4	10 292.0	9 530.0	8 357.0	8 691.0
Sugar beets								
Quebec	3.3	2.4	—	—	130.9	110.0	—	—
Manitoba	10.8	9.6	11.3	10.8	332.0	290.0	350.0	394.0
Alberta	12.9	—	12.1	11.9	463.0	—	595.0	565.0
Total, sugar beets	27.0	12.0	23.4	22.7	925.9	400.0	945.0	959.0

9.6 Harvested area and production of grain in the Prairie provinces, 1982-87

Grain	Harvested area ('000 ha)					
	1982	1983	1984	1985	1986 ^r	1987
Wheat	12 302	13 353 ^r	12 849 ^r	13 396 ^r	13 843	13 161
Oats	1 235	1 032	992 ^r	943 ^r	1 320	1 296
Barley	4 674	3 885	4 127	4 290	4 524	4 695
Rye	410	378	326	322 ^r	288	290
Flaxseed	631	429	720	740	755	591
Canola/rapeseed	1 720	2 246	2 995	2 712	2 558	2 610
Production ('000 t)						
	1982	1983	1984	1985	1986 ^r	1987
Wheat	26 127	25 427	20 086	22 943	30 060	24 984
Oats	2 837	2 098	1 912	2 190	2 669	2 374
Barley	12 584	9 101	9 036	10 930	12 977	12 443
Rye	832	721	563	501	551	447
Flaxseed	752	444	694	902	1 026	729
Canola/rapeseed	2 168	2 529	3 334	3 424	3 663	3 760

9.7 Stocks of Canadian grains, years ended July 31, 1984-87 (thousand tonnes)

Grain	1984					1985 ^r				
	In commercial storage	On farms	Total	Prairie provinces		In commercial storage	On farms	Total	Prairie provinces	
				On farms	In primary elevators				On farms	In primary elevators
Wheat	7 455	1 735	9 190	1 680	3 354	6 518	1 080	7 598	1 050	1 791
Oats	125	570	695	460	62	124	495	619	340	50
Barley	891	1 080	1 971	920	262	1 291	865	2 156	690	492
Rye	326	105	431	105	214	233	145	378	145	163
Flaxseed	130	25	155	25	69	119	25	144	25	67
Canola/rapeseed	105	15	120	15	25	375	85	460	85	216

9.7 Stocks of Canadian grains, years ended July 31, 1984-87 (thousand tonnes) (concluded)

Grain	1986 ^f					1987				
	In commercial storage	On farms	Total	Prairie provinces		In commercial storage	On farms	Total	Prairie provinces	
				On farms	In primary elevators				On farms	In primary elevators
Wheat	7 799	775	8 574	740	3 773	7 724	5 007	12 731	4 980	3 722
Oats	171	605	776	450	102	144	870	1 014	790	71
Barley	2 209	1 100	3 309	810	945	1 602	1 570	3 172	1 310	758
Rye	142	160	302	160	95	165	210	375	210	119
Flaxseed	207	65	272	65	97	302	140	442	140	157
Canola/rapeseed	675	275	950	275	343	449	170	619	170	205

9.8 Exports of all wheat and wheat flour, by country of final destination, crop years 1984-85 to 1986-87 (thousand tonnes)

Region	1984-85	1985-86	1986-87
Western Europe	1 302.0	1 536.2	1 725.3
United Kingdom	633.2	701.8	502.7
Italy	221.0	367.3	634.3
Eastern Europe	6 284.6	5 506.0	5 784.6
Poland	90.9	22.5	31.5
USSR	6 019.1	5 219.5	5 390.9
Middle East	1 990.8	1 393.6	1 442.8
Africa	716.2	809.1	658.7
Algeria	507.8	491.9	448.4
Asia	4 740.0	5 535.9	7 632.3
People's Republic of China	2 844.7	2 614.5	4 194.0
South America	1 485.1	1 420.5	1 534.0
Brazil	1 152.1	986.2	779.9
Central America and Antilles	852.5	1 200.3	1 582.4
Cuba	779.3	1 136.6	1 250.0
North America	169.5	281.1	420.9
Total	17 540.8	17 682.7	20 781.0

9.9 Supply and disposition of Canadian grain, crop years ended July 31, 1985-87 (thousand tonnes)

Item	Wheat	Oats	Barley	Rye	Flaxseed	Canola/rapeseed
Crop year 1984-85 ^f						
Carryover, Aug. 1, 1984	9 189.7	695.0	1 970.9	431.0	155.4	120.0
Production in 1984	21 187.9	2 576.1	10 278.6	652.3	693.5	3 411.9
Imports	—	1.0	83.9	—	—	6.0
Total, supply	30 377.6	3 272.1	12 333.4	1 083.3	848.9	3 537.9
Exports ¹	17 543.4	18.7	2 780.7	375.7	560.0	1 456.0
Domestic use ²	5 236.2	2 634.6	7 396.7	329.9	144.7	1 621.8
Total, disposition	30 377.6	3 272.1	12 333.4	1 083.3	848.9	3 537.9
Carryover, July 31, 1985	7 598.0	618.8	2 156.0	377.7	144.2	460.1
Crop year 1985-86 ^f						
Carryover, Aug. 1, 1985	7 598.0	618.8	2 156.0	377.7	144.2	460.1
Production in 1985	24 252.2	2 735.7	12 387.0	568.9	896.9	3 497.9
Imports	—	—	6.0	—	—	11.0
Total, supply	31 850.2	3 354.5	14 549.0	946.6	1 041.1	3 969.0
Exports ¹	17 683.4	43.8	3 795.0	276.0	614.0	1 456.0
Domestic use ²	5 593.3	2 534.9	7 445.0	368.2	155.4	1 562.8

9.9 Supply and disposition of Canadian grain, crop years ended July 31, 1985-87 (thousand tonnes) (concluded)

Item	Wheat	Oats	Barley	Rye	Flaxseed	Canola/rapeseed
Crop year 1985-86 ^f (concluded)						
Total, disposition	31 850.2	3 354.5	14 549.0	946.6	1 041.1	3 969.0
Carryover, July 31, 1986	8 573.5	775.8	3 309.0	302.4	271.7	950.2
Crop year 1986-87						
Carryover, Aug. 1, 1986	8 573.5	775.8	3 309.0	302.4	271.7	950.2
Production in 1986	31 377.9	3 251.1	14 568.6	609.0	1 026.3	3 786.5
Imports	—	—	0.1	0.2	—	11.0
Total, supply	39 951.4	4 026.9	17 877.7	911.6	1 298.0	4 747.7
Exports ¹	20 783.2	256.9	6 719.0	201.0	690.3	2 126.0
Domestic use ²	6 437.1	2 755.9	7 986.5	335.4	165.8	2 003.1
Total, disposition	39 951.4	4 026.9	17 877.7	911.6	1 298.0	4 747.7
Carryover, July 31, 1987	12 731.1	1 014.1	3 172.2	375.2	441.9	618.6

¹ Includes wheat flour in terms of wheat, rolled oats and oatmeal in terms of oats, and malt in terms of barley.

² Includes human food, seed requirements, industrial use, loss in handling and animal feed, waste and dockage.

9.10 Oilseed crushings in Canada, by crop year¹ 1982-83 to 1986-87 (tonnes)

Item	Soybeans	Canola/rapeseed
Quantity crushed		
1982-83	1 043 224	904 096
1983-84	937 205	1 159 322
1984-85	928 275	1 290 442
1985-86	893 626	1 211 136
1986-87	952 617	1 551 582
Oil produced		
1982-83	179 316	366 181
1983-84	166 256	456 441
1984-85	169 789	514 446
1985-86	155 474 ^f	497 739
1986-87	157 852	633 153
Meal produced		
1982-83	832 574	521 712
1983-84	735 953	688 058
1984-85	721 520	767 828
1985-86	696 209	691 016
1986-87	731 815	891 529

¹ Flaxseed and sunflower seed data are confidential.

9.11 Wheat milled and flour produced, crop years 1982-83 to 1986-87 (thousand tonnes)

Crop year	Wheat milled for flour	Wheat flour production
1982-83	2 323	1 718
1983-84	2 459	1 815
1984-85	2 412	1 785
1985-86	2 466	1 835
1986-87	2 469	1 866
Av. 1982-83 – 1986-87	2 426	1 804

9.12 Livestock slaughtered at federally inspected establishments

Year	Cattle	Calves	Sheep	Pigs
1980	3,059,483	337,331	114,840	12,927,452
1981	3,196,887	365,760	175,868	12,844,300
1982	3,293,947	411,826	201,995	12,701,317
1983	3,241,682	439,622	227,801	12,905,646
1984	3,116,220	479,499	233,431	12,999,374
1985	3,159,307	455,247	196,803	13,521,494
1986	3,118,401	447,840	174,278	13,515,082
1987	2,879,455	403,292	159,565	13,882,878

9.13 Production and apparent consumption of poultry meat¹

Item	1984 [†]			1985 [†]		
	Fowl and chickens	Turkeys	Total	Fowl and chickens	Turkeys	Total
Net production (t)	460 762	97 721	558 483	505 474	102 442	607 916
Total supply (t)	510 297	109 379	619 676	553 129	114 447	667 576
Domestic consumption (t)	492 551	99 379	591 930	534 895	101 368	636 263
Per capita consumption (kg)	19.7	4.0	23.7	21.2	4.0	25.2
	1986 [†]			1987		
	Fowl and chickens	Turkeys	Total	Fowl and chickens	Turkeys	Total
Net production (t)	523 571	104 906	628 477	567 989	115 170	683 159
Total supply (t)	572 323	121 257	693 580	622 367	130 670	753 037
Domestic consumption (t)	557 850	107 233	665 083	598 403	110 733	709 136
Per capita consumption (kg)	22.0	4.2	26.2	23.3	4.3	27.6

¹ Eviscerated weight.

9.14 Production and utilization of milk, by province

Province	1984				1985			
	Farm sales of milk and cream			Total milk production kL	Farm sales of milk and cream			Total milk production kL
	Fluid ¹ kL	Industrial purposes			Fluid ¹ kL	Industrial purposes		
		Milk ¹ kL	Cream ² kL			Milk ¹ kL	Cream ² kL	
Newfoundland	13 218	—	—	13 218	15 194	—	—	15 194
Prince Edward Island	13 162	78 095	6 946	98 203	13 732	74 256 ^r	6 573	94 561 ^r
Nova Scotia	114 289	57 861	5 732	177 882	115 796	52 504	5 676	173 976
New Brunswick	70 320	57 685	6 573	134 578	69 467	57 122	5 880	132 469
Quebec	636 387	2 333 077	422	2 969 886	650 764 ^r	2 181 858 ^r	298 ^r	2 832 920 ^r
Ontario	980 534	1 403 232	91 570	2 475 336	978 352	1 385 761	96 447	2 460 560
Manitoba	109 197	156 778	31 338	297 313	110 811	147 466	31 514	289 791
Saskatchewan	104 170	107 891	20 979	233 040	98 082	97 095	18 168	213 345
Alberta	254 049 ^r	303 280 ^r	30 272 ^r	587 601 ^r	255 677	286 526	25 150 ^r	567 353 ^r
British Columbia	302 919	176 394	603	479 916	304 312	178 588	444	483 344
Canada	2 598 245 ^r	4 674 293 ^r	194 435 ^r	7 466 973 ^r	2 612 187 ^r	4 461 176 ^r	190 150 ^r	7 263 513 ^r

9.14 Production and utilization of milk, by province (concluded)

Province	1986				1987			
	Farm sales of milk and cream			Total milk production kL	Farm sales of milk and cream			Total milk production kL
	Fluid ¹ kL	Industrial purposes			Fluid ¹ kL	Industrial purposes		
		Milk ¹ kL	Cream ² kL			Milk ¹ kL	Cream ² kL	
Newfoundland	17 026	—	—	17 026	18 685	—	—	18 685
Prince Edward Island	13 903	79 042	7 192	100 137	13 979	74 005	6 836	94 820
Nova Scotia	116 012	59 469	6 110	181 591	114 682	59 905	3 429	178 016
New Brunswick	70 286	57 556	5 485	133 327	71 062	54 783	4 653	130 498
Quebec	685 953 ^f	2 153 993 ^f	240 ^f	2 840 186 ^f	695 771	2 148 540	70	2 844 381
Ontario	995 988	1 346 494	96 205	2 438 687	1 018 953	1 370 915	93 950	2 483 818
Manitoba	114 028	147 843	29 446	291 317	116 509	157 318	32 812	306 639
Saskatchewan	97 484	110 503	16 363	224 350	98 836	112 888	16 120	227 844
Alberta	257 950	309 522	22 243	589 715	258 652	311 487	19 187	589 326
British Columbia	311 680	176 182	976	488 838	312 415	178 779	258	491 452
Canada	2 680 310 ^f	4 440 604 ^f	184 260 ^f	7 305 174 ^f	2 719 544	4 468 620	177 315	7 365 479

¹ Expressed as actual volume, regardless of butterfat content.
² Farm separated cream expressed in terms of milk equivalent (3.6 kg/hL butterfat).

9.15 Cash receipts¹ from milk and cream, sold off farms, by province (thousand dollars)

Year and province	Farm sales of milk and cream			Supplementary payments ³	Total cash receipts	
	Fluid purposes	Industrial purposes				Total
		Delivered as milk	Delivered as cream ²			
1984 ^f						
Newfoundland	8,534	—	—	8,534	8,534	
Prince Edward Island	5,586	21,851	1,271	28,708	34,071	
Nova Scotia	55,501	17,376	1,007	73,884	77,776	
New Brunswick	32,724	16,728	1,040	50,492	54,318	
Quebec	292,667	704,665	72	997,404	1,391,111	
Ontario	479,541	417,427	15,695	912,663	1,407,238	
Manitoba	51,565	48,833	4,528	104,926	116,172	
Saskatchewan	50,408	30,762	3,156	84,326	91,921	
Alberta	117,799	91,768	4,402	213,969	234,468	
British Columbia	154,465	66,747	91	221,303	221,322	
Canada	1,248,790	1,416,157	31,262	2,696,209	2,976,998	
1985 ^f						
Newfoundland	9,449	—	—	9,449	9,449	
Prince Edward Island	5,938	20,740	1,241	27,919	33,009	
Nova Scotia	59,109	14,679	1,026	74,814	78,316	
New Brunswick	34,050	16,870	944	51,864	55,584	
Quebec	313,083	673,954	55	987,092	1,301,134	
Ontario	503,521	419,115	16,975	939,611	1,439,106	
Manitoba	54,817	42,894	4,659	102,370	113,305	
Saskatchewan	49,476	29,132	2,797	81,405	88,384	
Alberta	123,873	87,972	3,792	215,637	234,228	
British Columbia	157,755	70,329	69	228,153	234,047	
Canada	1,311,071	1,375,685	31,558	2,718,314	3,000,387	
1986 ^f						
Newfoundland	11,001	—	—	11,001	11,001	
Prince Edward Island	6,272	22,937	1,343	30,552	35,883	
Nova Scotia	61,492	17,297	1,103	79,892	83,546	
New Brunswick	35,278	17,564	901	53,743	57,415	
Quebec	335,076	684,493	46	1,019,615	1,354,735	
Ontario	518,166	431,247	16,426	965,839	1,484,451	
Manitoba	56,474	45,891	4,417	106,782	117,410	
Saskatchewan	51,382	35,539	2,509	89,430	96,636	
Alberta	124,035	96,107	3,516	223,658	242,536	
British Columbia	161,800	69,780	157	231,737	241,964	
Canada	1,360,976	1,420,855	30,418	2,812,249	3,088,893	

9.15 Cash receipts¹ from milk and cream, sold off farms, by province (thousand dollars) (concluded)

Year and province	Farm sales of milk and cream				Supplementary payments ³	Total cash receipts
	Fluid purposes	Industrial purposes		Total		
		Delivered as milk	Delivered as cream ²			
<hr/>						
1987						
Newfoundland	12,151	—	—	12,151	—	12,151
Prince Edward Island	7,208	23,396	1,290	31,894	5,153	37,047
Nova Scotia	63,348	16,967	631	80,946	3,447	84,393
New Brunswick	36,645	17,131	775	54,551	3,613	58,164
Quebec	341,765	703,310	15	1,045,090	132,069	1,177,159
Ontario	526,294	463,411	16,267	1,005,972	87,877	1,093,849
Manitoba	56,477	48,775	4,994	110,246	11,071	121,317
Saskatchewan	52,015	34,843	2,510	89,368	7,261	96,629
Alberta	118,900	99,085	3,119	221,104	18,799	239,903
British Columbia	160,250	70,969	44	231,263	10,423	241,686
<hr/>						
Canada	1,375,053	1,477,887	29,645	2,882,585	279,713	3,162,298

¹ Haulage, levies and board fees have been deducted where applicable.

² Farm separated cream expressed in terms of milk equivalent (3.6 kg/hL butterfat).

³ Receipts and supplementary payments are considered as accruing to milk and cream for the month in which the payment is made.

9.16 Production of butter and cheese, by province, 1984-87 (tonnes)

Province	1984				1985			
	Butter			Cheese factory ^{1,2}	Butter			Cheese factory ^{1,2}
	Creamery	Whey	Total		Creamery	Whey	Total	
Prince Edward Island	1 464	81	1 545	3	1 030	98	1 128	3
Nova Scotia	1 621	42	1 663	5 727 ⁴	1 476	44	1 520	5 705 ⁴
New Brunswick	1 508	—	1 508	3	2 732	—	2 732	3
Quebec	52 462	2 431	54 893	74 557	42 742	3 447	46 189	86 052
Ontario	31 815	1 453	33 268	87 207	30 215	1 448	31 663	92 008
Manitoba	3 847	—	3 847	6 906	3 746	—	3 746	6 465
Saskatchewan	5 117	—	5 117	899	5	5	5	5
Alberta	8 272	96	8 368	8 684	6 703	5	5	11 459
British Columbia	1 682	—	1 682	5 473	5	5	5	5
Canada	107 788	4 103	111 891	192 437	94 882	5 088	99 970	212 693
	1986 [†]				1987			
	Butter			Cheese factory ^{1,2}	Butter			Cheese factory ^{1,2}
	Creamery	Whey	Total		Creamery	Whey	Total	
Prince Edward Island	1 342	80	1 422	3	1 641	5	5	3
Nova Scotia	1 695	35	1 730	5 682 ⁴	1 436	51	1 487	5 224 ⁴
New Brunswick	2 601	—	2 601	3	2 790	—	2 790	3
Quebec	46 164	2 805	48 969	97 503	43 381	3 018	46 399	112 796
Ontario	30 191	1 004	31 195	90 372	29 275	427	29 702	93 451
Manitoba	3 859	—	3 859	5 859	4 147	—	4 147	6 339
Saskatchewan	5	—	5	5	5	5	5	5
Alberta	7 323	5	5	11 751	6 944	5	5	12 565
British Columbia	5	5	5	5	5	5	5	5
Canada	98 515	4 070	102 585	225 603	95 287	3 757	99 044	245 772

¹ Factory-made cheese includes cheddar and other cheese made from milk and cream. Amounts for other cheese are included in Quebec, Ontario and Alberta figures, but, as fewer than three firms reported in the other provinces, data cannot be included except in the Canada total.

² Skim and whey cheese are included from 1985 to date.

[†] Included with Nova Scotia.

⁴ Includes Prince Edward Island and New Brunswick.

⁵ Confidential.

9.17 Apparent domestic consumption of specified dairy products

Product	Total consumption (t)			
	1984	1985 [†]	1986 [†]	1987
Creamery butter	106 842	103 155	99 513	100 705
Cheddar cheese	97 170	103 079	107 173	109 961
Process cheese	71 668	70 561	68 056	72 061
Other cheese	110 092	119 803	135 246	142 801
Cottage cheese ¹	30 696	34 092	32 731	31 110
Skim milk powder	63 059	46 024	44 640	57 732
Concentrated milk ²	39 645	65 255	44 202	50 870
Partly skimmed concentrated milk 2% ³	9 534	9 103	8 674	8 451
Sweetened concentrated milk ⁴	14 156	14 237	11 221	10 287
	Total consumption (kL)			
	1984	1985	1986	1987
Yogurt ¹	53 193	61 243	70 255	81 969
Ice cream, hard and soft ¹	301 205	310 207	318 121	309 374

¹ Production data only.² Previously called evaporated whole milk.³ Previously called partly skimmed evaporated milk (2%).⁴ Previously called condensed whole milk.

9.18 Estimated commercial production and farm value of fruit

Fruit	Weight (t)				Farm value (\$'000)			
	1984	1985	1986	1987	1984 [†]	1985 [†]	1986	1987
Apples	434 248	478 606	388 175	490 132	91,054	115,598	115,379	100,092
Apricots	2 323	2 274	2 335	2 849	1,022	1,117	1,115	1,294
Blueberries	17 056	22 432	16 631	27 998	13,167	20,312	19,844	39,400
Cherries (sweet)	8 148	8 690	3 973	7 857	5,940	8,885	4,637	6,897
Cherries (sour)	7 614	7 349	4 377	7 510	5,884	6,019	4,164	..
Cranberries	6 123	8 186	8 489	11 457	8,141	13,847	16,930	16,626
Grapes	94 208	76 636 [†]	89 218	85 632	42,129	35,911	40,091	41,749
Peaches	30 570	42 204	33 199	44 865	17,150	21,955	19,720	22,080
Pears	24 353	28 217	23 673	27 623	9,759	11,532	11,649	10,021
Plums and prunes	5 391	6 339 [†]	6 239	6 574	2,977	3,936	3,676	2,298
Raspberries	14 991 [†]	15 262	13 111	21 656	23,663	26,887	33,514	32,055
Strawberries	33 230	38 301	29 093	32 935	38,412	46,355	42,717	48,598

9.19 Estimated commercial area and production of vegetables

Vegetables	Area (ha)				Production (t)			
	1984 [†]	1985 [†]	1986	1987	1984 [†]	1985 [†]	1986	1987
Asparagus	2 000	2 168	2 360	2 281	2 516	3 008	3 574	2 963
Beans	8 247	7 988	8 053	8 734	50 655	45 274	36 925	47 360
Beets	907	856	800	857	19 215	17 325	15 208	16 199
Cabbage	5 265	5 292	4 900	4 930	153 685	146 495	127 697	130 774
Carrots	6 844	6 912	7 370	7 774	269 504	243 017	240 016	274 898
Cauliflower	2 848	3 179	3 346	3 223	48 773	44 927	52 012	50 991
Celery	684	756	754	776	37 293	32 558	30 049	35 949
Corn	32 237	32 856	31 749	33 000	307 783	307 625	275 098	302 405
Cucumbers, field	3 649	3 448	3 702	3 900	66 000	57 719	61 317	59 927
Lettuce	2 059	2 134	2 573	2 604	48 512	53 362	44 294	47 745
Onions	3 748	3 857	3 706	3 665	148 747	149 239	117 805	123 506
Parsnips	196	183	181	181	3 360	2 934	3 124	3 141
Peas	20 613	18 988	14 212	14 513	72 275	80 652	50 215	44 142
Rutabagas	3 318	2 949	2 864	2 955	103 320	80 909	84 800	87 264
Spinach	512	459	438	425	4 340	3 524	2 457	3 140
Tomatoes, field	16 208	14 353	14 498	14 380	600 309	542 899	533 242	538 500

9.20 Honey production, by province, and total value, 1984-87, with 10-year average for 1976-85 and 1977-86

Province	Average		1984	1985	1986	1987
	1976-85	1977-86				
Prince Edward Island	t 52	52	58	39	32	34
Nova Scotia	" 212	210	215	236	136	230
New Brunswick	" 139	139	181	152	102	204
Quebec	" 3 725	3 817	6 400	4 800	2 800	4 850
Ontario	" 3 604	3 637	4 391	4 129	3 600	5 117
Manitoba	" 7 083	7 333	7 893	8 709	7 983	7 911
Saskatchewan	" 6 015	6 265	8 573	7 382	6 532	8 659
Alberta	" 9 965	10 122	12 542	8 391	10 859	11 567
British Columbia	" 2 175	2 254	3 045	2 281	1 996	2 121
Total production	" 32 969	33 829	43 297	36 120	34 039	40 691
Total value	\$'000 47,108	49,563	63,212	55,192	49,628	..

9.21 Harvested area, yield, production and value of sugar beets

Year	Area ha	Yield per ha kg	Production t	Average price per tonne \$	Total value \$'000
1982	28 700	35 686	1 024 200	36.40	37,257
1983	30 900	37 780	1 167 400	33.70	39,329
1984	27 000	34 293	925 900	29.60	27,444
1985	12 000	33 333	400 000	..	..
1986*	23 400	40 385	945 000	..	..
1987	22 700	42 247	959 000	..	..

9.22 Production and value of maple sugar and maple syrup, 1985-87, with 5-year average for 1977-81 and 1982-86

Province and year	Maple sugar		Maple syrup		Total value sugar and syrup \$'000
	Quantity kg	Value \$'000	Quantity '000 kL	Value \$'000	
Nova Scotia					
Av. 1977-81	9 525	58	36	151	209
Av. 1982-86	9 979	82	50	319	401
1985	10 433	77	50	332	409
1986	6 350	61	50	324	385
1987	6 350	74	32	251	325
New Brunswick					
Av. 1977-81	9 072	50	32	130	180
Av. 1982-86	12 247	100	50	275	375
1985	7 257	60	41	231	291
1986	17 690	169	100	608	777
1987	14 515	135	86	645	780
Quebec					
Av. 1977-81	156 943	682	9 365	25,166	25,848
Av. 1982-86	139 253	870	7 960	31,426	32,296
1985	166 015	1,121	8 788	36,632	37,753
1986	95 254	786	9 010	55,906	56,692
1987	101 151	1,130	7 787	..	1,130
Ontario					
Av. 1977-81	5 443	37	650	2,461	2,498
Av. 1982-86	10 433	105	782	4,279	4,384
1985	11 793	120	991	5,600	5,720
1986	14 515	156	600	3,638	3,794
1987	12 701	153	523	3,927	4,080
Total					
Av. 1977-81	180 983	827	10 083	27,908	28,735
Av. 1982-86	171 912	1,157	8 842	36,299	37,456
1985	195 498	1,378	9 870	42,795	44,173
1986	133 810	1,172	9 760	60,476	61,648
1987	134 717	1,492	8 428	..	..

9.23 Production and value of farm eggs

Province	Egg production ('000 doz)				Total value sold and used (\$'000)			
	1984 ^f	1985 ^f	1986 ^f	1987	1984 ^f	1985 ^f	1986 ^f	1987
Newfoundland	8,360	8,429	8,320	8,395	9,176	8,953	8,639	8,736
Prince Edward Island	2,936	3,004	3,153	3,132	3,053	3,006	3,077	3,039
Nova Scotia	17,780	17,931	17,831	18,508	19,308	19,706	19,012	20,055
New Brunswick	10,651	10,549	10,237	10,581	13,285	14,402	13,578	14,035
Quebec	78,146	77,599	78,209	79,128	89,404	91,518	90,218	91,269
Ontario	188,438	184,756	182,639	182,582	196,614	191,356	186,788	184,305
Manitoba	52,040	52,903	53,402	54,567	49,615	49,341	48,488	48,090
Saskatchewan	18,907	18,689	18,801	18,888	19,044	18,905	18,576	18,450
Alberta	41,197	39,731	40,619	40,439	46,201	45,028	45,237	45,097
British Columbia	59,074	58,561	59,051	59,248	64,654	60,969	60,570	59,568
Canada	477,529	472,152	472,262	475,468	510,354	503,184	494,183	492,644

9.24 Production and disposition of tobacco products

Product	Year	Total production	Sales ¹			Adjustments ³
			In Canada	Ship/air stores embassies/Canada ²	For export--bulk shipments, including Canadian mission abroad ²	
Cigarettes ('000)	1984	61,634,277	61,733,857	445,696	674,929	-616,570
	1985	63,485,718	58,953,247	514,329	719,179	-429,900
	1986	55,632,568	55,436,969	560,055	977,729	-752,631
	1987	54,002,844	52,613,071	863,083	1,148,618	-338,273
Cigars ('000)	1984	333,560	312,052	2,708	8,330	-454
	1985	302,274	305,585	3,340	4,671	-1,281
	1986	283,045	283,250	3,526	3,200	7,993
	1987	277,590	261,613	4,560	5,272	5,816
Manufactured tobacco						
	Fine cut ⁴ (kg)					
	1984	6 319 306	6 165 084	1 363	12 078	96 944
	1985	6 401 610	6 866 366	23	9 256	-14 762
	1986	7 858 074	7 412 790	315	18 067	95 030
Pipe tobacco (kg)	1987	7 894 994	7 863 380	15 206	107 361	-127 922
	1984	124 622	133 722	—	—	10 020
	1985	59 076	90 761	—	—	13 249
	1986	37 709	36 526	—	—	7 166
	1987	49 711	47 733	—	—	1 602
Other ⁵ (kg)						
	1984	125 626	117 705	—	—	-6 921
	1985	78 701	100 630	—	—	8 826
	1986	—	1 797	—	—	—
	1987	—	—	—	—	—

¹ Includes samples and goods invoiced to wholesalers, retailers, and institutions which are subject to excise duty, less returned goods credited to same.² Excise duty exempt.³ All non-sale transactions (goods damaged, destroyed, stolen, reworked, stock adjustment).⁴ Includes tobacco intended for cigarettes.⁵ Other tobacco, plug, snuff, chewing and twist.

9.25 Farm product price index¹ (1981 = 100)

Province	1983	1984	1985 [†]	1986 [†]	1987
Newfoundland	100.4	105.9	106.5	106.3	107.6
Prince Edward Island	83.6	93.5	83.0	84.2	101.3
Nova Scotia	100.7	105.3	105.3	111.0	117.9
New Brunswick	92.9	100.8	96.3	94.9	107.5
Quebec	104.4	104.9	102.5	108.4	110.8
Ontario	102.1	108.0	103.3	106.3	106.6
Manitoba	94.6	101.9	94.3	85.0	78.2
Saskatchewan	91.8	96.6	88.9	74.8	65.4
Alberta	94.6	101.6	94.5	85.8	81.1
British Columbia	103.0	108.2	107.7	109.3	111.0
Canada	97.6	102.9	97.2	93.1	90.3

¹ A description of this index, its coverage and the methods used can be obtained from Agriculture Division, Statistics Canada. Monthly farm product price indexes are published in *Farm Product Price Index* (Cat. No. 62-003).

9.26 Average cash grain prices, crop years ended July 31, 1983-87 (dollars per tonne)

Item	1982-83	1983-84	1984-85	1985-86	1986-87
Canadian Wheat Board					
Wheat ¹ (1 CWRS 13.5)	204.64	215.21	235.33 ²	249.12 ²	180.72
Oats ¹ (1 CW)	148.76	160.76	157.74	150.90	141.50
Barley ¹ (SP SEL 6R)	163.38	181.27	207.14	210.26	210.00
Winnipeg Commodity Exchange					
Rye ¹ (1 CW)	120.64	142.50	132.59	109.33	92.10
Flaxseed ¹ (1 CW)	293.92	364.13	351.42	291.79	209.83
Canola-rapeseed ³ (1 Canada)	306.99	455.44	386.04	301.40	239.70

¹ Basis in store Thunder Bay.

² Basis in store Lower St. Lawrence.

³ Basis in store Pacific Coast.

9.27 Weighted average prices per 100 kg of Canadian livestock at public stockyards (dollars)

City and item	Average price				
	1983	1984	1985	1986	1987
Toronto					
A1,2 steers over 454 kg	174.12	188.05	179.96	182.23	195.97
D1,2 cows	112.11	117.55	115.04	116.21	134.46
Feeder steers over 363 kg	167.33	177.25	179.88	186.07	207.65
Choice and good veal calves	174.39	182.33	176.72	181.48	197.18
Index 100 hogs, dressed	155.98	160.17	151.04	179.40	175.50
Good lambs	170.37	189.99	213.30	235.30	248.46
Winnipeg					
A1,2 steers over 454 kg	159.84	171.23	168.30	168.92	182.54
D1,2 cows	104.26	106.90	107.48	110.39	122.11
Feeder steers over 363 kg	159.57	165.30	165.81	169.82	193.87
Choice and good veal calves	237.33	241.14	220.73	218.17	256.53
Index 100 hogs, dressed	150.99	154.54	146.06	178.80	172.30
Good lambs	131.26	144.07	171.83	181.79	192.00
Calgary					
A1,2 steers over 454 kg	157.72	166.52	163.54	159.22	179.90
D1,2 cows	102.69	103.35	107.10	110.25	125.82
Feeder steers over 363 kg	163.10	168.65	172.53	189.29	212.68
Choice and good veal calves	—	—	—	—	—
Index 100 hogs, dressed	—	—	—	—	—
Good lambs	—	—	—	—	—
Edmonton					
A1,2 steers over 454 kg	157.48	165.26	160.47	159.77	178.18
D1,2 cows	100.42	101.50	102.47	105.36	120.26
Feeder steers over 363 kg	162.64	166.40	167.82	178.31	209.22
Choice and good veal calves	—	—	—	—	—
Index 100 hogs, dressed	153.88	151.83	144.03	171.70	168.50
Good lambs	130.69	154.98	177.96	176.66	195.42

9.28 Per capita supplies of food moving into consumption, 1983-86

Kind of food	Weight base	kg per capita per annum			
		1983 [†]	1984 [†]	1985 [†]	1986
Cereals	retail weight	67.96	68.94	73.11	72.49
Wheat flour	"	55.73	56.80	60.95	59.63
Rye flour	"	0.45	0.36	0.39	0.33
Oatmeal and rolled oats	"	1.59	1.57	1.58	1.59
Pot and pearl barley	"	1	1	1	1
Corn flour and meal	"	1	1	1	1
Buckwheat flour	"	1	1	1	1
Rice	"	3.73	3.90	3.96	4.48
Breakfast food	"	4.05	3.81	3.88	4.27
Sugar and syrups	sugar content	38.91	41.20	42.35	42.64
Sugar	retail weight	38.70	41.04	42.19	42.55
Maple sugar	"	0.24	0.19	0.19	0.10
Honey	"	..	..	..	..
Other	"	..	..	..	..
Pulses and nuts	retail weight	3.99	..	6.24	7.55
Dry beans	"	0.83	0.07	0.66	..
Baked canned beans	"	..	..	..	..
Dry peas	"	..	0.89	2.19	2.97
Peanuts	"	2.62	2.70	2.68	3.03
Tree nuts	"	1.37	1.69	1.37	1.55
Oils and fats	fat content	21.48	20.82	21.49	21.52
Margarine	retail weight	6.34	6.08	6.45	6.14
Shortening and shortening oils	"	8.29	8.04	7.95	7.86
Salad oils	"	4.54	4.41	5.07	5.50
Butter	"	4.36	4.27	4.05	3.97
Lard	"	..	..	..	..
Fruit	fresh equiv.	125.58	134.22	118.15	122.19
Fresh	retail weight	61.77	62.87	60.15	62.66
Canned	net wt. canned	8.85	9.06	8.41	7.99
Frozen	retail weight	1.32	1.03	1.10	0.89
Juice	net wt. canned	27.73	29.95	22.13	23.52
Tomatoes	retail weight	6.99	7.32	6.92	8.80
Fresh	retail weight	3.65	3.53	3.31	3.03
Canned	net wt. canned	3.43	3.47	3.12	2.82
Juice	"	1.68	1.85	1.90	2.00
Pulp, paste and purée	"	..	..	1	1
Ketchup	"	..	..	..	..
Citrus fruit	retail weight	15.72	14.15	13.50	14.95
Fresh	retail weight	12.13	12.34	11.00	11.90
Juice	net wt. canned	10.81	12.29	12.02	12.17
Apples	retail weight	1	1	1	1
Fresh	retail weight	6.62	7.68	6.93	7.14
Canned	net wt. canned	0.14	0.04	0.12	0.12
Juice	retail weight	0.60	0.64	0.80	0.47
Frozen	net wt. canned	0.21	1	1	0.05
Sauce	"	0.08	0.01	0.08	0.18
Pie filling	"	0.08	0.01	0.08	0.18
Apricots	retail weight	0.08	0.10	0.11	0.12
Fresh	retail weight	0.12	1	1	1
Canned	net wt. canned	10.04	11.04	11.23	11.86
Bananas, fresh	retail weight	1	0.16	0.23	0.19
Blueberries	"	1	1	1	1
Fresh	retail weight	0.08	0.01	0.08	0.18
Canned	net wt. canned	1	1	1	1
Frozen	retail weight	0.17	1	1	1
Cherries	"	0.43	0.34	0.45	0.46
Fresh	retail weight	4.76	5.28	5.22	5.83
Canned	net wt. canned	1.95	1.86	1	1
Frozen	retail weight	0.92	0.97	0.89	1.09
Pears	"	1	1	1	1
Fresh	retail weight	1.82	2.10	1.97	1
Canned	net wt. canned	0.62	0.54	1	1
Pineapples	retail weight	0.50	0.45	0.42	0.50
Fresh	retail weight	0.88	1.25	1.28	1.10
Canned	net wt. canned	0.35	0.50	0.33	0.31
Juice	"	1.14	1	1	1
Plums	retail weight	0.03	0.04	0.03	1
Fresh	retail weight	0.04	1	0.22	0.24
Canned	net wt. canned	1	1	1	1
Frozen	retail weight	0.43	0.56	0.49	0.23

9.28 Per capita supplies of food moving into consumption, 1983-86 (continued)

Kind of food	Weight base	kg per capita per annum			
		1983 ^r	1984 ^r	1985 ^r	1986
Strawberries					
Fresh	retail weight	1.53	1.88	2.01	1.82
Canned	net wt. canned	1	1	1	1
Frozen	retail weight	0.50	0.42	0.41	0.36
Grapes, fresh	"	5.96	5.90	5.85	2.99
Unspecified					
Fresh	"	"	"	"	"
Canned	net wt. canned	1	1	1	1
Frozen	retail weight	4.58	5.17	..	..
Juice	net wt. canned	..	..	..	..
Jams, jellies, marmalade	processed weight	..	..	..	..
Vegetables ²	fresh equiv.	67.80	68.68	64.95	68.40
Fresh	retail weight	53.17	54.21	56.32	60.00
Canned	net wt. canned	7.04	5.83	2.85	4.66
Frozen	retail weight	3.06	3.73	3.57	3.74
Cabbage, fresh	"	6.37	6.65	6.45	5.54
Lettuce	"	9.25	9.58	9.62	10.08
Spinach, fresh	"	..	..	..	..
Carrots	"	8.85	7.97	8.53	9.50
Fresh	"	0.20	0.23	0.15	0.21
Canned	net wt. canned	0.65	0.83	0.76	1.03
Frozen	retail weight	0.71	0.79	0.75	0.80
Beans	"	1.29	1.33	1.08	1.02
Fresh	"	0.45	0.53	0.47	0.45
Canned	net wt. canned	0.08	0.17	0.18	0.09
Frozen	net wt. canned	1.48	1.46	0.94	1.26
Peas	retail weight	0.90	1.19	1.12	0.98
Beets	"	0.46	0.50	0.56	0.59
Fresh	"	0.21	0.20	0.26	0.21
Canned	net wt. canned	2.48	2.77	2.64	3.12
Cauliflower, fresh	retail weight	4.23	4.33	4.26	4.33
Celery, fresh	"	2.40	3.12	2.86	3.78
Corn	"	1.97	2.02	1	1
Fresh	"	0.66	0.57	0.59	0.80
Canned	net wt. canned	2.52	2.60	3.39	2.91
Frozen	retail weight	6.78	6.63	7.35	7.88
Cucumbers, fresh	"	0.12	1	0.06	0.16
Onions, not processed	net wt. canned	0.14	1	1	0.15
Asparagus	retail weight	0.01	0.01	0.01	0.01
Fresh	"	2.26	2.57	2.40	2.81
Canned	"	1.50	1.78	1.94	2.32
Frozen	"	0.14	0.19	0.26	0.16
Brussels sprouts	"	0.14	0.18	0.20	0.20
Fresh	"	0.14	0.17	0.17	0.18
Frozen	"	1.31	0.77	0.82	1.10
Unspecified	net wt. canned	0.30	0.46	0.30	0.31
Fresh	retail weight	..	..	1	1
Frozen	fresh equiv.	2.20	1.27	1.38	2.98
Mushrooms	retail weight	1.09	1.27	1.38	1.74
Potatoes	net wt. canned	1.34	1	1	1.50
White	fresh equiv.	77.36	61.06	65.28	78.11
Sweet	"	77.04	60.69	64.87	77.70
Canned meat ³	"	0.32	0.37	0.41	0.41
Meat	carcass weight	72.77	70.59	71.91	71.86
Pork	"	28.78	28.15	28.77	27.94
Beef	"	40.18	38.39	38.94	39.51
Veal	"	1.60	1.73	1.75	1.76
Mutton and lamb	"	0.79	0.86	0.76	0.92
Offal	"	1.42	1.46	1.69	1.73
Canned meat ³	net wt. canned	..	..	..	..
Eggs	fresh equiv.	12.56	12.15	11.96	11.77
Poultry ⁴	eviscerated wt.	22.91	23.70	25.06	26.21
Chicken	"	17.24	18.35	19.66	20.49
Fowl	"	1.61	1.40	1.41	1.49
Turkey	"	4.06	3.95	3.99	4.23
Duck	"	..	..	..	..
Goose	"	..	..	..	..

9.28 Per capita supplies of food moving into consumption, 1983-86 (concluded)

Kind of food	Weight base	kg per capita per annum			
		1983 [†]	1984 [†]	1985 [†]	1986
Fish	edible weight	6.18	6.29	..	..
Fish and shellfish					
Fresh and frozen ⁵	"	4.02	4.07	4.14	..
Canned	"	2.05	2.04	2.24	..
Fish, cured (smoked, salted, pickled)	"	0.11	0.18	..	..
Beverages					
Tea	tea leaf equiv.	0.91	0.88	0.51	0.22
Coffee	green bean equiv.	4.33	4.37	4.54	4.38
Cocoa	"	1.55	0.94	1.03	0.28

[†] Confidential.² Includes pickles, relishes and vegetables used in soups.³ Per capita consumption not comparable with previous years.⁴ Excludes Newfoundland.⁵ Excludes herring fresh and frozen, and all fish used for bait.

9.29 Supply, distribution and apparent consumption of meats

Item		1984 [†]	1985 [†]	1986 [†]	1987
Beef					
Animals slaughtered	'000	3,565.9	3,603.0	3,530.4	3,261.6
Estimated dressed weight	t	948 414	985 250	990 482	932 143
On hand, Jan. 1	"	17 690	15 704	17 600	13 192
Imports for consumption	"	113 624	113 643	109 848	133 589
Total supply	"	1 079 728	1 114 597	1 117 930	1 078 924
Exports	"	104 526	116 492	102 326	88 873
On hand, Dec. 31	"	15 704	17 600	13 192	11 481
Apparent domestic consumption	"	959 498	980 505	1 002 412	978 570
Apparent per capita consumption	kg	38.39	38.94	39.51	38.15
Veal					
Animals slaughtered	'000	651.9	631.8	619.9	563.2
Estimated dressed weight	t	42 308	43 539	45 152	44 652
On hand, Jan. 1	"	967	554	710	649
Imports for consumption	"	1 211	1 201	1 708	1 204
Total supply	"	44 486	45 294	47 570	46 505
Exports	"	570	615	2 279	3 547
On hand, Dec. 31	"	554	710	649	262
Apparent domestic consumption	"	43 362	43 969	44 642	42 696
Apparent per capita consumption	kg	1.73	1.75	1.76	1.66
Mutton and lamb					
Animals slaughtered	'000	467.5	418.7	396.9	382.0
Estimated dressed weight	t	8 902	8 205	7 972	7 571
On hand, Jan. 1	"	4 463	1 592	2 376	3 140
Imports for consumption	"	9 834	11 719	16 210	15 048
Total supply	"	23 199	21 516	26 558	25 759
Exports	"	39	98	53	56
On hand, Dec. 31	"	1 592	2 376	3 140	2 587
Apparent domestic consumption	"	21 568	19 042	23 365	23 116
Apparent per capita consumption	kg	0.86	0.76	0.92	0.90
Pork					
Animals slaughtered	'000	13,886.0	14,452.0	14,443.7	14,855.4
Estimated dressed weight	t	864 734	901 747	909 133	937 045
On hand, Jan. 1	"	10 456	11 062	8 983	8 075
Imports for consumption	"	14 739	17 038	13 883	17 341
Total supply	"	889 929	929 847	931 999	962 461
Exports	"	175 295	196 457	215 024	237 584
On hand, Dec. 31	"	11 062	8 983	8 075	8 301
Apparent domestic consumption	"	703 572	724 407	708 900	716 576
Apparent per capita consumption	kg	28.15	28.77	27.94	27.90
Offal					
Estimated production	t	66 692	68 256	67 538	65 814
On hand, Jan. 1	"	5 082	4 752	6 390	4 734
Imports for consumption	"	7 461	10 175	12 390	12 707
Total supply	"	79 235	83 183	86 318	83 255
Exports	"	37 902	34 211	37 759	39 286
On hand, Dec. 31	"	4 752	6 390	4 734	6 175
Apparent domestic consumption	"	36 581	42 582	43 825	37 794
Apparent per capita consumption	kg	1.46	1.69	1.73	1.47

9.30 Number of Census-farms, by province, 1961-86

Province	1961	1971	1976	1981	1986
Newfoundland	1,752	1,042	878	679	651
Prince Edward Island	7,335	4,543	3,677	3,154	2,833
Nova Scotia	12,518	6,008	5,434	5,045	4,283
New Brunswick	11,786	5,485	4,551	4,063	3,554
Quebec	95,777	61,257	51,587	48,144	41,448
Ontario	121,333	94,722	88,801	82,448	72,713
Manitoba	43,306	34,981	32,104	29,442	27,336
Saskatchewan	93,924	76,970	70,958	67,318	63,431
Alberta	73,212	62,702	61,130	58,056	57,777
British Columbia	19,934	18,400	19,432	20,012	19,063
Canada	480,877	366,110	338,552	318,361	293,089

9.31 Census-farms, by type of organization and by province, 1981 and 1986 Census years

Province	Year	Individual family farm	Partnership		Legally constituted company		Other type
			Written	Verbal	Family	Non-family	
Newfoundland	1981	555	10	44	37	6	27
	1986	497	12	33	64	11	34
Prince Edward Island	1981	2,639	168	211	119	6	11
	1986	2,278	174	197	154	19	11
Nova Scotia	1981	4,435	175	221	173	23	18
	1986	3,569	214	209	222	49	20
New Brunswick	1981	3,538	94	212	179	27	13
	1986	2,898	138	223	239	42	14
Quebec	1981	43,946	1,696	893	1,348	194	67
	1986	34,971	2,132	1,068	2,960	246	71
Ontario	1981	68,410	5,191	5,629	2,690	428	100
	1986	56,708	5,002	6,682	3,805	387	129
Manitoba	1981	25,701	688	1,965	882	85	121
	1986	22,869	761	2,468	1,035	81	122
Saskatchewan	1981	59,671	1,378	4,003	1,768	124	374
	1986	54,478	1,381	4,960	2,092	107	413
Alberta	1981	50,169	1,446	3,723	2,269	190	259
	1986	47,862	1,654	4,794	2,864	199	404
British Columbia	1981	16,715	640	1,147	1,277	164	69
	1986	14,812	679	1,668	1,656	145	103
Canada	1981	275,779	11,486	18,048	10,742	1,247	1,059
	1986	240,942	12,147	22,302	15,091	1,286	1,321

9.32 Use of farm land, by province, 1981 and 1986 Census years (hectares)

Province	Year	Improved land				Unimproved land	Total area of farms	Total land area
		Under crops	Improved pasture	Summer fallow	Other			
Nfld.	1981	4 744	4 148	358	1 203	23 004	33 457	37 163 735
	1986	4 876	3 821	384	1 657	25 820	36 561	37 163 735
PEI	1981	158 280	36 228	3 027	5 153	80 336	283 024	566 171
	1986	156 497	22 621	2 647	4 550	86 115	272 432	566 171
NS	1981	112 782	46 106	5 154	13 941	288 056	466 039	5 284 093
	1986	109 511	36 236	3 910	8 068	258 779	416 506	5 284 093
NB	1981	130 526	41 479	5 183	14 742	245 972	437 902	7 156 913
	1986	129 475	27 203	4 289	7 945	239 979	408 892	7 156 913
Que.	1981	1 756 038	443 559	53 077	107 666	1 418 940	3 779 280	135 780 889
	1986	1 744 395	301 132	31 802	60 060	1 501 409	3 638 800	135 780 889

9.32 Use of farm land, by province, 1981 and 1986 Census years (hectares) (concluded)

Province	Year	Improved land				Unimproved land	Total area of farms	Total land area
		Under crops	Improved pasture	Summer fallow	Other			
Ont.	1981	3 632 727	657 009	63 309	165 507	1 520 779	6 039 331	91 743 326
	1986	3 457 965	431 285	80 336	125 559	1 551 433	5 646 581	91 743 326
Man.	1981	4 420 369	352 507	598 338	132 766	2 231 000	7 734 980	54 770 473
	1986	4 519 334	274 944	509 213	99 584	2 337 148	7 740 226	54 770 473
Sask.	1981	11 740 864	975 364	6 704 464	263 163	6 849 000	26 532 855	57 011 330
	1986	13 325 810	878 726	5 658 250	181 582	6 554 984	26 599 354	57 011 330
Alta.	1981	8 441 242	1 581 443	2 205 468	297 329	7 681 000	20 206 482	63 823 257
	1986	9 162 523	1 376 814	2 127 013	239 685	7 749 303	20 655 340	63 823 257
BC	1981	568 241	266 884	63 528	47 677	1 521 000	2 467 330	89 307 184
	1986	570 843	206 428	81 166	41 831	1 510 790	2 411 060	89 307 184
Canada	1981	30 965 813	4 404 727	9 701 906	1 049 147	21 859 087	67 980 680	922 097 313
	1986	33 181 234	3 559 215	8 499 015	770 526	21 815 765	67 825 756	922 097 313

9.33 Farm land classified by tenure, 1986 Census (hectares)

Province	Area owned	Area rented or leased		Total area
		From government	From other sources	
Newfoundland	13 118	21 859	1 583	36 561
Prince Edward Island	200 167	14 764	57 500	272 432
Nova Scotia	359 440	19 305	37 760	416 506
New Brunswick	347 068	13 511	48 312	408 892
Quebec	3 166 015	78 457	394 328	3 638 800
Ontario	4 229 662	80 540	1 336 379	5 646 581
Manitoba	4 871 428	929 246	1 939 550	7 740 226
Saskatchewan	16 521 056	3 895 109	6 183 188	26 599 354
Alberta	12 053 839	4 090 437	4 511 062	20 655 340
British Columbia	1 457 107	627 883	326 068	2 411 060
Canada	43 218 905	9 771 115	14 835 736	67 825 756

9.34 Census-farms, by province and size, 1981 and 1986 Census years (acres)

Province	Year	Size (acres)									
		Under 3	3-9	10-69	70-239	240-399	400-559	560-759	760-1,119	1,120-1,599	1,600 and over
Nfld.	1981	100	144	257	132	19	6	6	6	1	8
	1986	74	106	271	137	27	10	10	6	1	9
PEI	1981	77	72	423	1,606	577	217	87	57	24	14
	1986	100	80	380	1,322	512	231	101	67	20	20
NS	1981	171	251	894	2,047	884	401	210	111	43	33
	1986	192	195	720	1,636	764	395	196	120	38	27
NB	1981	102	157	478	1,701	834	407	200	114	39	31
	1986	124	146	382	1,327	771	402	199	122	49	32
Que.	1981	998	1,664	7,610	24,411	8,605	3,015	1,151	534	109	47
	1986	837	1,230	6,016	19,710	8,182	3,205	1,372	661	174	61
Ont.	1981	1,761	3,487	17,129	40,067	12,022	4,425	1,918	1,107	371	161
	1986	1,638	2,752	14,684	34,837	10,872	4,140	1,974	1,206	414	196

9.34 Census-farms, by province and size, 1981 and 1986 Census years (acres) (concluded)

Province	Year	Size (acres)									
		Under 3	3-9	10-69	70-239	240-399	400-559	560-759	760-1,119	1,120-1,599	1,600 and over
Man.	1981	250	523	1,832	5,389	4,975	4,113	3,875	4,203	2,352	1,930
	1986	272	494	1,710	4,881	4,270	3,429	3,484	3,914	2,493	2,389
Sask.	1981	264	241	1,189	7,438	8,577	7,718	9,314	13,510	10,012	9,055
	1986	339	254	1,107	7,017	7,505	6,514	7,939	12,323	9,892	10,541
Alta.	1981	321	589	3,352	12,426	9,383	6,844	6,404	7,600	4,978	6,159
	1986	364	667	3,365	12,588	8,726	6,267	6,103	7,341	5,164	7,192
BC	1981	716	4,525	7,137	3,783	1,205	613	593	546	354	540
	1986	830	3,985	6,926	3,500	1,170	600	519	534	392	607
Canada	1981	4,760	11,653	40,301	99,000	47,081	27,759	23,758	27,788	18,283	17,978
	1986	4,770	9,909	35,561	86,955	42,799	25,193	21,897	26,294	18,637	21,074

9.35 Spraying and dusting and irrigation, by province, 1980 and 1985 (Census data)

Province	Spraying and dusting				Irrigation			
	1980		1985		1980		1985	
	Number of farms	Acres sprayed or dusted	Number of farms	Acres sprayed or dusted	Number of farms	Acres irrigated	Number of farms	Acres irrigated
Newfoundland	217	2,893	182	3,839	5	22	10	72
Prince Edward Island	2,243	281,139	1,953	298,038	4	57	9	307
Nova Scotia	1,541	79,005	1,439	91,206	126	1,496	157	2,891
New Brunswick	1,524	165,638	1,351	176,402	71	856	106	1,770
Quebec	17,082	1,208,788	17,484	1,525,018	618	14,799	1,352	37,768
Ontario	50,891	5,702,381	46,206	5,952,659	2,638	79,387	3,723	129,818
Manitoba	17,462	6,888,540	19,755	9,887,088	283	17,136	273	24,049
Saskatchewan	39,179	14,707,520	53,671	32,705,754	1,277	138,164	1,642	207,399
Alberta	31,778	12,281,034	33,600	16,986,561	4,159	973,519	4,641	1,152,231
British Columbia	5,795	376,043	6,000	424,923	6,706	248,279	7,138	291,119
Canada	167,712	41,692,981	181,641	68,051,488	15,887	1,473,715	19,051	1,847,424

9.36 Total weeks of hired agricultural labour, by province, 1970-85 (Census data)

Province	1970 ¹		1975 ¹		1980		1985	
	Number of farms	Total weeks	Number of farms	Total weeks	Number of farms	Total weeks	Number of farms	Total weeks
Newfoundland	242	17,961	217	16,541	259	15,943	331	22,836
Prince Edward Island	2,203	95,849	1,493	72,220	1,628	80,656	1,682	86,755
Nova Scotia	2,283	112,303	1,763	102,219	2,182	151,741	2,397	164,393
New Brunswick	2,062	87,688	1,583	77,047	1,892	100,525	2,057	112,918
Quebec	20,698	480,550	15,577	532,301	19,406	761,828	23,415	907,862
Ontario	36,383	1,509,412	28,702	1,283,292	34,023	1,721,178	36,941	1,920,119
Manitoba	11,234	263,328	8,509	285,107	9,433	247,727	12,140	342,706
Saskatchewan	26,092	401,897	18,093	423,292	20,522	413,297	28,738	708,299
Alberta	20,996	552,430	16,376	556,216	17,950	559,110	24,978	867,535
British Columbia	7,335	310,666	6,484	338,593	7,904	484,165	9,162	582,576
Canada	129,530	3,832,135	98,802	3,686,963	115,199	4,536,170	141,841	5,715,999

¹ The Canada total includes data for Yukon and Northwest Territories.

9.37 Census-farms classified by sales class and province, 1981 and 1986 Census years

Province	Year	Number of farms with sales of							Total
		\$100,000 and over	\$50,000– 99,999	\$25,000– 49,999	\$10,000– 24,999	\$5,000– 9,999	\$2,500– 4,999	Under \$2,500	
Nfld.	1981	78	35	35	68	64	104	295	679
	1986	110	43	41	77	67	77	236	651
PEI	1981	381	414	473	569	386	362	569	3,154
	1986	553	433	422	496	292	262	375	2,833
NS	1981	515	388	342	601	634	689	1,876	5,045
	1986	735	333	316	641	578	567	1,113	4,283
NB	1981	383	423	382	477	501	536	1,361	4,063
	1986	644	369	296	511	466	490	778	3,554
Que.	1981	4,145	8,500	8,825	7,509	4,562	4,643	9,960	48,144
	1986	9,121	8,378	5,638	5,590	4,016	4,417	4,288	41,448
Ont.	1981	12,559	12,510	10,963	13,952	10,158	8,818	13,488	82,448
	1986	16,436	10,453	9,034	12,620	8,842	5,868	9,460	72,713
Man.	1981	3,191	5,530	6,394	6,308	3,053	2,041	2,925	29,442
	1986	5,878	5,905	4,839	4,807	2,310	1,523	2,074	27,336
Sask.	1981	5,813	15,453	18,961	15,392	5,773	2,950	2,976	67,318
	1986	10,947	16,998	14,670	11,649	4,304	2,241	2,622	63,431
Alta.	1981	7,327	9,873	11,049	12,003	6,387	4,525	6,892	58,056
	1986	11,364	10,549	9,842	10,244	5,697	4,047	6,034	57,777
BC	1981	2,154	1,346	1,748	2,802	2,487	3,060	6,415	20,012
	1986	2,616	1,231	1,757	2,832	2,456	2,807	5,364	19,063
Canada	1981	36,546	54,472	59,172	59,681	34,005	27,728	46,757	318,361
	1986	58,404	54,692	46,855	49,467	29,028	22,299	32,344	293,089

9.38 Census-farms with sales of \$2,500 or more, classified by product type and province, 1986

Product type	Province					
	Nfld.	PEI	NS	NB	Que.	Ont.
Dairy	68	584	698	631	15,906	11,028
Cattle	45	652	979	739	5,763	17,160
Hogs	17	221	132	125	2,749	4,840
Poultry	54	28	127	96	893	1,643
Wheat	—	4	1	7	217	733
Small grains (excl. wheat farms)	—	90	62	62	2,922	13,693
Field crops, other than small grains	13	474	45	384	771	1,988
Fruits and vegetables	94	60	457	252	2,250	4,089
Miscellaneous specialty	75	149	481	313	4,051	4,203
Mixed farms						
Livestock combination	12	127	42	45	382	1,653
Other combinations ¹	37	69	146	122	1,256	2,223
Total	415	2,458	3,170	2,776	37,160	63,253
Product type	Province					Canada
	Man.	Sask.	Alta.	BC		
Dairy	1,412	881	1,828	1,150		34,186
Cattle	4,682	7,866	17,110	4,266		59,262
Hogs	1,111	906	1,635	290		12,026
Poultry	356	166	533	752		4,648
Wheat	6,272	30,968	8,504	151		46,857
Small grains (excl. wheat farms)	8,758	16,942	15,403	663		58,595
Field crops, other than small grains	415	285	1,187	356		5,918
Fruits and vegetables	100	36	119	2,920		10,377
Miscellaneous specialty	731	609	1,944	1,893		14,449
Mixed farms						
Livestock combination	615	1,064	1,399	238		5,577
Other combinations ¹	810	1,086	2,081	1,020		8,850
Total	25,262	60,809	51,743	13,699		260,745

¹ In 1986, includes "field crops combination".**Sources**

9.1 – 9.23, 9.25 – 9.38 Agriculture Division, Statistics Canada.

9.24 Industry Division, Statistics Canada.

CHAPTER 10

MINES AND MINERALS

CHAPTER 10

MINES AND MINERALS

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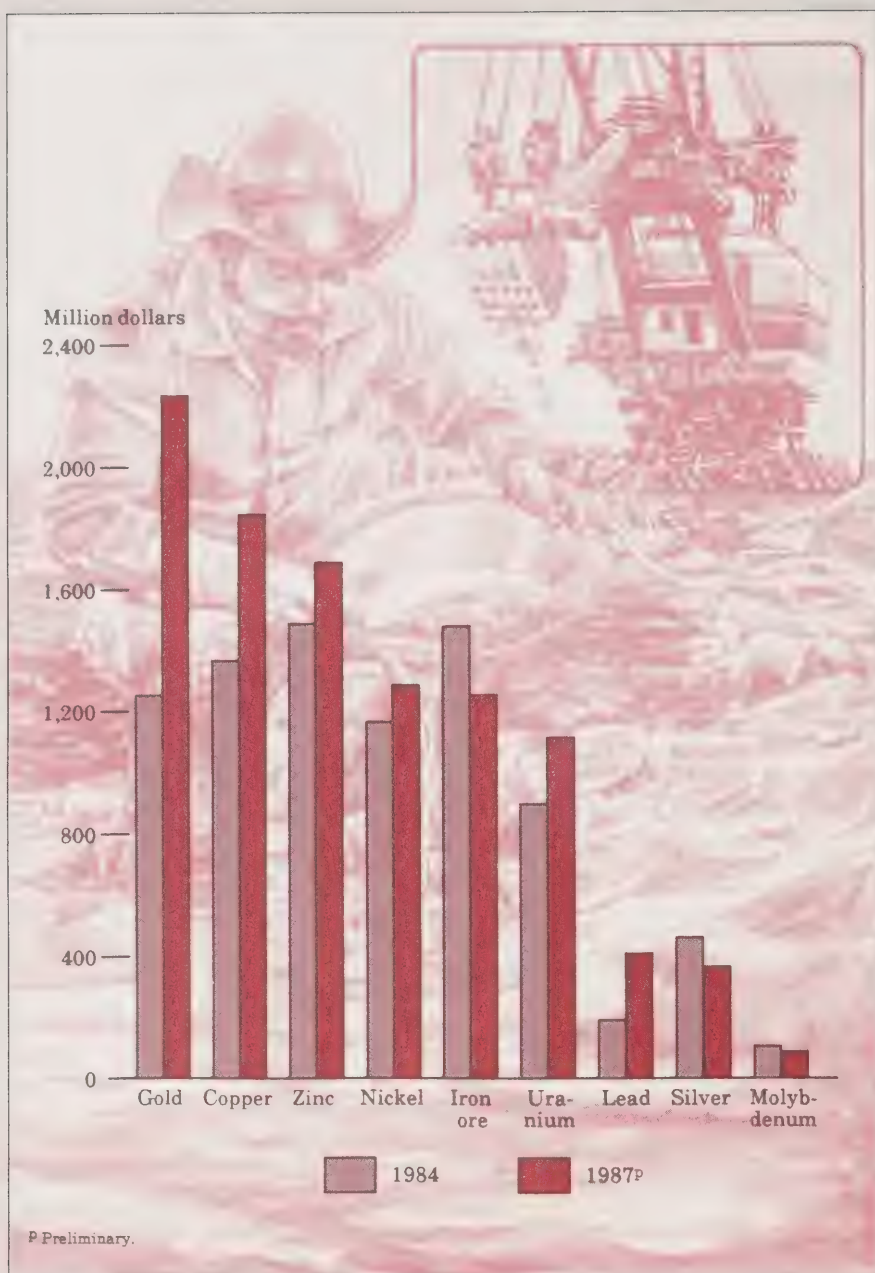
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VALUE OF PRODUCTION, LEADING METALS

On a volume basis, Canada is a world leader in the production of many minerals including metallic minerals. The top six metallic minerals in terms of total value of output for Canada in 1987 were: gold, copper, zinc, nickel, iron ore and uranium. Gold continued to hold the top position in the non-fuel mineral industry with the value of gold output reaching a new high of \$2.2 billion in 1987.

MINES AND MINERALS

10.1 Canada's mineral industry

Canada leads the world in value of mineral exports and ranks fourth among the diversified mineral producers in non-fuel mineral production, behind the Soviet Union, the United States and South Africa. The mineral industry continues to be a major factor in Canada's economic development. The industry is highly diversified with over 60 different mineral commodities produced. It is also widely distributed regionally, with exploration and mining activities being carried out in all regions of Canada.

On a volume basis, Canada is a world leader in the production of many minerals. It is first in uranium and zinc; second in nickel, asbestos, gypsum, potash, elemental sulphur and titanium; and is among the top five producers of aluminum, cadmium, cobalt, copper, gold, lead, molybdenum, silver and the platinum group metals. Except for a few minerals such as bauxite, chromium, manganese, phosphate and tin, Canada produces most of its mineral requirements.

In 1987, the value of production by the Canadian mining industry was \$16.1 billion (excluding coal, oil and natural gas). Approximately 80% of this production was destined for export markets. The United States, Japan and Western Europe are Canada's major trading partners.

10.1.1 Sectors of production

The Canadian mineral industry is generally divided into four sectors: metallic minerals, non-metallic minerals, structural materials and mineral fuels. The first three of these sectors are presented in this chapter; the information in this chapter excludes mineral fuels. The mineral industry is also described in terms of stages of activity: exploration, mining and milling; metallurgical extraction; minerals and metals-based semi-fabricating; and metals-based manufacturing.

The mineral fuels sector, which is comprised of coal, oil, natural gas and uranium, appears in Chapter 11, Energy.

The total value of mineral production (metallics, non-metallics and structurals) in Canada was \$16.1

billion in 1987 compared to \$13.7 billion in 1986, an increase of 17.5%. Metallic minerals accounted for \$10.9 billion in 1987 or 67.9% of the total; non-metallic minerals accounted for \$2.5 billion or 15.4% of the total; and structural materials represented \$2.6 billion or 16.4% of the total.

On a regional basis, Ontario accounted for the largest share of the total value of mineral production in 1987, at 34.7%; followed by Quebec, 15.7%; British Columbia, 11.6%; Saskatchewan, 8.4%; Alberta, 5.9%; and Manitoba, 5.7%. The remaining 18.0% was spread among the other four provinces and two territories.

In terms of real output measured by Gross Domestic Product (GDP) by industry at factor cost at 1981 prices (a measure of the value of output by the industry), the GDP of the total mineral industry was \$21.8 billion in 1987 compared to \$20.9 billion in 1986, an increase of 4.5%. GDP of the mining sector in 1987 was \$7.6 billion, an increase of 9.3% over 1986. GDP in the primary metal industries (including non-ferrous smelters and refineries and the crude steel industries) was \$4.6 billion in 1987, an increase of 7.9% over the previous year. For the metallic and non-metallic semi-fabricating and fabricating industries, GDP increased by 8.9% to \$9.2 billion in 1987. The minerals sector overall accounted for about 5.6% of total GDP at factor cost.

Rising prices and sustained productivity increases resulted in a much improved performance for Canada's mineral industry in 1987 compared to 1986. The price increases reflected tighter global supply of minerals as the mine closures and smelter rationalizations of the past five years brought production more in line with demand.

Total employment in the minerals sector was approximately 375,000 in 1987, an increase of 1.8% over 1986. While employment in metal mining and non-metal mining dropped marginally from the 1986 levels, all other sectors of activity showed gains. Employment in the mining sector overall (metal mines, non-metal mines and structural materials) was approximately 64,000. Employment in smelting and refining and the

crude steel industries was about 73,000; while employment in mineral manufacturing industries totalled about 238,000. The minerals sector overall accounted for about 3.1% of total employment in Canada in 1987.

One area of cost cutting for the mining sector has been in capital and repair expenditures. However, in 1987, the downward trend of the past few years was reversed. Total capital and repair expenditures in mining in 1987 were \$3.1 billion, an increase of about 10% over 1986. For the mineral industry overall, total capital and repair expenditures were \$7.4 billion in 1987, down slightly from \$7.5 billion in 1986. The minerals industry accounted for about 5.4% of total capital and repair expenditures in Canada in 1987.

The availability of flow-through share financing continued to be of considerable aid to the mining industry. Flow-through share financing approached \$1 billion during 1987. The success of the program was largely the result of the continuing exploration expenditures associated with the search for gold.

10.1.2 Export sales

Exports of crude and fabricated minerals totalled \$17.9 billion in 1987. This represented 14.7% of total domestic exports. Of the total of all mineral exports, \$10.8 billion or 60.5% was destined for the US, while 15.3% went to the EEC and 8.7% to Japan. Crude minerals accounted for \$6.0 billion of total mineral exports, while refined metals and fabricated minerals accounted for \$11.9 billion. Imports of crude and fabricated minerals totalled \$8.4 billion in 1987. Net exports contributed about \$9.5 billion to Canada's balance of trade.

10.1.3 Leading minerals

The top six commodities in terms of total value of output in 1987 (with 1986 values in brackets) were: gold, \$2.2 billion (\$1.7 billion); copper, \$1.8 billion (\$1.4 billion); zinc, \$1.7 billion (\$1.2 billion); nickel, \$1.3 billion (\$1.0 billion); iron ore, \$1.3 billion (\$1.3 billion) and uranium, \$1.1 billion (\$1.0 billion).

In the non-fuel mineral industry, gold continues to hold the top position with respect to value of output. The value of gold output in Canada increased to a new high of \$2.2 billion in 1987, up \$554 million from 1986. The quantity of gold produced increased from 102 899 kg in 1986 to 117 834 kg in 1987. The continuing success of flow-through share funding in raising capital for exploration, combined with an average gold price of US\$447/oz. in 1987, maintained much of the focus on this commodity. Of particular interest

was the merging of Placer Development Limited; Dome Mines Limited and Campbell Red Lake Mines Limited merged to form Placer Dome Inc., and became the largest gold producer in North America.

Silver staged a comeback in 1987, with the average price at close to US\$7.00/oz. compared to an average price of US\$5.46/oz. in 1986. The value of output in 1987 was \$374 million, up from \$275 million in 1986. Production rose from 1 088 t in 1986 to 1 250 t in 1987.

The price of copper surged on the London Metal Exchange (LME) to a seven-year high of US\$1.45/lb. in 1987. A lower valued United States dollar, tight inventories and stronger than expected demand contributed to shortages that led to higher prices. In 1987, the volume and value of copper output increased by nearly 10% and 30%, respectively.

The volume of zinc output was up to 1.3 million tonnes in 1987, a 35% increase over the nearly 1.0 million tonnes reported in 1986. The value of output also increased in 1987 to nearly \$1.7 billion, up from \$1.2 billion in 1986. A steady decline in zinc metal stocks over the past five years has brought down inventories to a level which should help sustain higher prices.

The volume of lead output increased to 391 000 t in 1987 from 334 000 t in 1986 and the value increased to \$413 million from \$228 million in 1986. The price of lead on the LME averaged about US18¢/lb. in 1986; by May of 1987, the price had risen to more than US34¢/lb. The average price for 1987 was about US27¢/lb. These higher prices were partially attributable to increases in demand combined with supply disruptions.

The volume of nickel output in Canada increased by nearly 15% to 188 000 t in 1987 while value increased by 32% to nearly \$1.3 billion. The price of nickel on the LME reached a five-year high of US\$4.23/lb. on December 30, 1987, up from US\$1.60/lb. at the beginning of the year.

In 1987, Canada's iron ore industry continued to face the harsh realities of an oversupply in international markets. Japan, the biggest iron ore buyer in the world, reduced its imports of iron ore from traditional suppliers such as Canada and the United States in 1987; improvements in Korean and Taiwanese markets helped to offset the Japanese cutbacks. Production of iron ore in Canada remained relatively stable in 1987 with volume of output up by 4% to 37.6 million tonnes, although the value of output was down by 7% to \$1.3 billion.

Molybdenum producers continued to face an oversupply situation in 1987. At the start of the

year, the Metals Week dealer price for molybdenum was US\$3.05/lb., but by year end the price had declined to US\$2.80/lb. In spite of somewhat negative market conditions, Canada's output of molybdenum in 1987 increased from 11 250 t in 1986 to 11 580 t and the value increased from \$90 million to \$93 million over the same period.

While asbestos production had been pressured by health concerns and shrinking demand over the past few years, the decline in production appeared to bottom out in 1987. Production levels were relatively unchanged from the previous year. In the agricultural minerals market, there was a rebound in potash consumption in Canada and in all of its export markets. Structural materials had a good year overall, riding on the residential construction boom.

10.2 Provincial and territorial summary

Excluding coal, oil, natural gas and gas byproducts, the value of Canadian mineral production in 1987 increased 17.5% over 1986. Metals increased 24.2%, structural materials increased 12.7%, but non-metals dropped 1.7%. Newfoundland registered a decrease in the value of mineral production, the result of lower values for iron ore, its major commodity. Exploration expenditures across Canada showed a marked increase, largely the result of renewed interest in gold, an improved geologic database resulting from projects carried out under the federal-provincial mineral development agreements, and tax incentives such as flow-through share funding.

Newfoundland. The value of mineral production totalled \$767 million in 1987, a 6.1% decrease from 1986. Iron ore accounted for 89% of this value. Exploration expenditures reached record levels of an estimated \$25 million, establishing renewed enthusiasm within the mining industry.

Prince Edward Island. Value of mineral (sand and gravel) production increased 9.3% to \$1.9 million.

Nova Scotia. The increase in the value of mineral production over 1986, not including coal and a small amount of crude petroleum, was 16% for an estimated \$219 million. Exploration expenditures reached a record level of more than \$50 million, reflecting the surge in gold interest.

New Brunswick. The value of mineral production, excluding fuels, increased by 41% to \$668 million; with \$295 million for zinc and \$84 million for lead. Potash was the major contributor in the industrial minerals sector.

Quebec. Value of mineral production reached a record level of \$2.5 billion, an increase of 15.4%

over 1986. The increased value was mainly attributable to higher gold prices. Exploration expenditures totalled nearly \$500 million, an increase of more than 90% over 1986.

Ontario. The value of output, excluding natural gas and crude petroleum, was \$5.6 billion, more than 17% greater than 1986. Gold, nickel, copper and uranium accounted for over 55% of the value. Ontario continues to be the top gold-producing province.

Manitoba. The value of mineral production, excluding crude petroleum, increased by 36.1% to \$909 million, of which \$386 million was for nickel, \$173 million for copper, and \$84 million for zinc. With several new gold mines in production, the value of gold increased by 70% over 1986 for a value of \$71.4 million.

Saskatchewan. The value of production, excluding coal, natural gas, natural gas byproducts and crude petroleum, increased 22.3% from 1986 to \$1.3 billion. Uranium accounted for \$612 million.

Alberta. Alberta produces only minimal amounts of metallics, non-metallics and structural materials which recorded a 15% decrease in value in 1987.

British Columbia. The 1987 value of production, excluding coal, natural gas, natural gas byproducts and crude petroleum, increased 20.9% over 1986, boosted by increases in copper (33.6%) and gold (49.5%). Record levels of exploration were recorded, with over \$130 million estimated for metals alone.

Yukon. The 1987 value of production was \$447 million, an increase of 154% over 1986. The lead-zinc-silver Faro mine approached its rated production capacity and gold values reached \$97 million, a 67% increase.

Northwest Territories. Value of production, excluding natural gas, natural gas byproducts and crude petroleum, increased 21.2% to \$810 million, largely the result of lead and zinc values which totalled \$560 million.

10.3 Commodity summary

As noted in the introductory section of this chapter, mineral fuels (oil, natural gas, coal and uranium) are reviewed in Chapter 11, Energy. Metals, non-metals and structural materials are presented in the following sections of this chapter.

10.3.1 Metals

Copper. In 1987, 767 300 t of copper were produced in Canada, valued at \$1.8 billion.

British Columbia, the largest copper producing province, accounted for 45% of Canada's production in 1987. Most of the province's production of copper is exported for treatment to offshore smelters and refineries which are located primarily in the Pacific Basin. A 4500 tonnes per year (t/y) solvent extraction and electrowinning plant at the Gibraltar mine produces electrowin cathodes.

Production in Ontario, the second largest producing province, is located mainly in Sudbury and Timmins. Two copper smelters and a copper refinery in Sudbury are supplied by mines in the area. A refinery and a continuous smelter in Timmins are supplied with ore from an underground mine. Some concentrate is also shipped to custom smelting facilities in Quebec. Ontario accounted for 36.6% of Canada's copper production in 1987.

Quebec and Manitoba produced 7.3% and 9.4% of production, respectively, in 1987. Smelting facilities in Manitoba (Flin Flon) and Quebec (Rouyn-Noranda and Murdochville) send anode copper to a refinery in Montreal East, one of the largest in the world.

The remaining production comes from mines in New Brunswick, Saskatchewan and Nova Scotia. Copper production in the Maritime provinces is a byproduct of the production of other metals.

Copper prices rose in the latter half of 1987, averaging US\$0.80/lb. for the year on the London Metal Exchange, and continued to climb in 1988. Although production was expected to continue increasing in 1989, slow growth in demand was forecast and prices were expected to decline.

Canadian copper concentrates are smelted domestically or are exported to offshore custom smelters. In 1987, 381 000 t of copper in concentrates were exported, of which 72% went to Japan. Canadian smelters in Quebec supplemented their domestic concentrate supplies in 1987 by importing scrap and 52 000 t of copper in concentrates. Canadian refined copper production (491 000 t in 1987), almost exclusively in the form of cathodes, is either shipped to domestic fabricators or exported, mainly to the US and Western Europe. In 1987, 215 000 t were shipped to domestic destinations, 289 000 t were exported (68% to the US and 30% to Western Europe) while 16 000 t of cathodes were imported.

Copper is the preferred material when superior electrical or thermal conductivity and corrosion resistance are desired. Copper's main uses are for the transmission of electrical energy and electrical signals, for water transmission and heat transfer. Copper, as well, may possess definite bacteriological advantages: preliminary research has shown

that *Legionella pneumophila* bacteria are inhibited by plumbing systems fabricated from copper whereas plumbing systems made from other materials did not show similar inhibition.

Iron Ore. The Canadian iron ore industry, ranked seventh in the world in 1987, produced 37.6 million tonnes valued at \$1.25 billion.

The capacity of the Canadian industry has been reduced by mine closures from 67 million tonnes in 1982 to about 50 million tonnes in 1988. The industry employs over 6,500 persons, with six operating mines. The three plants located in Ontario are small and supply the domestic steel industry, while the three in the Quebec/Labrador trough are large export oriented firms. About 80% of the iron ore produced in Canada is exported; about 35% of the ore used by Canadian steel companies is imported, mainly from the United States.

The industry produces iron ore concentrates and pellets. Most of the iron ore sold in North America is in the form of pellets, while the concentrate is more popular in Europe and Japan. These products are available in a number of grades and types.

During 1988, the industry operated near capacity, due to high demand in the United States and Canada. Iron ore demand was expected to weaken by the end of 1989. Factors in this expected decline are a general decrease in economic activity and an increase in output by electric furnace steel mills that use scrap rather than iron ore.

In the longer term, demand for iron ore will continue to grow, as more environmentally benign new direct smelting processes enter operation, displacing traditional blast furnaces.

Nickel. Canada is the second largest producer of nickel in the world, after the USSR, accounting for a little over one-fifth of total production. In 1987, Canada produced about 188 000 t, valued at \$1.3 billion, compared to 163 600 t in 1986.

Nickel is produced from mines at Sudbury, Ont. and Thompson, Man. Refined nickel is produced at Sudbury and Port Colborne, Ont., and Thompson, Man. A nickel refinery is also in operation at Fort Saskatchewan, Alta.

Cost reduction programs have been an important priority of producers in the past few years. The results have been encouraging and production costs at the Sudbury and Thompson operations, in current dollars, were actually lower in 1987 than in 1980.

Nickel prices on the London Metal Exchange (LME) rose in 1987 to an average price of US\$2.21/lb. compared to US\$1.76/lb. in 1986. Prices rose in the latter part of the year in response to strong nickel demand and tight supplies.

Resistance to corrosion, high strength over a wide temperature range, pleasing appearance and suitability as an alloying agent are characteristics of nickel which make it useful in a wide range of applications. The major use is in stainless steels, which account for close to 50% of consumption, followed by nickel-based alloys, electroplating, alloy steels, foundry products and copper-based alloys. Nickel is extensively used as an alloying agent and is a component in approximately 3,000 different alloys.

Gold. Canadian gold production increased for the seventh consecutive year in 1987 totalling 117 834 kg valued at \$2.2 billion, compared with 102 899 kg valued at \$1.7 billion in 1986.

While the recent price of gold has remained well below the record high of 1980, exploration for the metal has been maintained at record levels which has resulted in additional mines being developed. Canada is one of a number of countries which are expanding their gold production. Although Canada has traditionally ranked third in world gold production, in 1986, Canada was surpassed by the United States as the third largest gold producer in the world; Australia may also pass Canada in the near future.

Since the 1981 discovery and subsequent development of Hemlo gold mining in northern Ontario, every province except Alberta and Prince Edward Island has established significant new gold mines. Ontario remains the leading producer with 46% of output, followed by Quebec with 25% and British Columbia and the Northwest Territories, each with 10%. Manitoba and Saskatchewan, while only accounting for 4% of the total production in 1987, increased their combined output by 83% from the previous year.

Canadian production comes mainly from primary gold mines; Canada's 51 operating gold mines accounted for 80% of annual production at the end of 1987. Byproduct gold from base metal operations accounted for nearly 15%, while placer mining operations in the Yukon, British Columbia and Alberta accounted for the remaining 5%.

The highly successful Gold Maple Leaf bullion coin program operated by the Royal Canadian Mint is the major consumer of Canadian mined gold accounting for over 65% of production. Since its introduction in 1979, the maple leaf coin program has consumed over 300 000 kg (10 million ounces) of Canadian gold. The 99.99% pure coin has felt competition from other gold producing countries, including Australia and the United States which have both introduced their own bullion coins.

Most Canadian mined gold in Canada is also refined in Canada. The larger refineries are: the Royal Canadian Mint in Ottawa, Noranda in Montreal, Que., Degussa Canada Ltd. at Burlington, Ont., and Johnson Matthey Ltd. at Brampton, Ont.

Zinc. Canada is the world's largest producer and trader of zinc providing about 25% of all zinc consumed in the western world. Western world zinc production and consumption in recent years have reflected the state of the world economy. Canadian mine output in 1987 was 1.3 million tonnes compared with 0.9 million tonnes in 1981. Canadian production of refined zinc in 1987 and 1986 reached 610 000 t and 571 000 t, respectively, well below the 692 000 t produced in 1985. For a second year in a row, metal production was affected by strikes. Consumption of refined zinc was 167 000 t in 1987, up from 156 000 t in 1986. Zinc is used mainly for galvanizing (43%), in brass (24%), diecasting alloys (14%), with semi-manufactures and chemicals accounting for the balance.

Four electrolytic zinc refineries in Canada have a total annual capacity of 705 000 t. Cominco Ltd. at Trail, BC is Canada's largest, followed by Canadian Electrolytic Zinc Limited at Valleyfield, Que.; Falconbridge Limited at Timmins, Ont.; and Hudson Bay Mining and Smelting Co. Limited, at Flin Flon, Man. All smelters, except that at Flin Flon, have completed modernization and expansion programs in recent years, the most recent being Falconbridge.

Zinc is produced in approximately 30 mines in Canada, all of which also produce as co-products, or byproducts, lead, copper or both, as well as gold and silver. The Yukon and Northwest Territories are the largest zinc mining regions, accounting for just over 36.3% of Canadian production. Other important producers are Ontario (24.3%), New Brunswick (17.4%), British Columbia (8.9%) and Quebec (7.0%).

Silver. Canadian silver production increased in 1987 to 1 250 t up from 1 088 t in 1986. The increase was mainly the result of increased production by base metal producers.

Canada is the world's fourth largest producer of silver. Mexico, Peru and the USSR, respectively, are the largest silver producers — the United States is another major producer.

British Columbia is the largest silver producer in Canada, accounting for 32% of total production, followed by Ontario and New Brunswick with 27% and 17%, respectively.

Silver prices reversed a four-year trend of weak prices and increased by 28% in 1987 to average US\$7.02/oz. compared with US\$5.47/oz. the

previous year. Most Canadian silver is refined in Canada at the facilities of Cominco Ltd. at Trail, BC; Noranda at Montreal, Que.; and Agnico Eagle at Cobalt, Ont.

Lead. Lead is mined mainly as a co-product of zinc in New Brunswick, British Columbia, the Yukon and Northwest Territories. Minor amounts of lead are also produced as a byproduct of polymetallic ores in Ontario and Manitoba. Primary lead metallurgical works are located at Belledune, NB and Trail, BC.

In 1987, an estimated 391 000 t of lead in concentrates were produced, which was about 56 000 t more than in 1986. Refined lead production from all sources dropped by 41 000 t to 217 000 t in 1987, mainly as the result of a three-month strike at the Trail, BC operations.

The Canadian lead mining industry is generally considered to be internationally very cost competitive. The ore is of good grade and the mines are large and well equipped. The domestic lead smelting industry is currently undergoing a modernization program to enhance its cost competitiveness.

Platinum group metals. The platinum group metals, which include platinum, palladium, rhodium, ruthenium, iridium and osmium, occur in nature in close association and are chemically similar in many respects. Platinum and palladium are the most important members of the group in terms of both production and variety of uses.

Canada, the third largest producer of platinum group metals (PGMs) following South Africa and the Soviet Union, accounts for about 5% of total world production. Canadian production in 1987 was estimated at 13.5 million grams.

Platinum group metals are produced in Canada by two companies as byproducts from the mining of nickel-copper ores. Although the bulk of the PGMs are recovered from operations in the Sudbury, Ont. basin, small amounts of these metals are also produced at Thompson, Man.

The residue from the refining of nickel-copper matte, which contains platinum group metals, is shipped by one company to its refinery at Acton in the United Kingdom for the extraction and refining of PGMs. The other company ships a nickel-copper matte containing PGMs to its refinery at Kristiansand, Norway.

While the use of the PGMs, particularly platinum, in jewellery is important, their principal applications are industrial in nature. The unique attributes of the PGMs, including remarkable catalytic properties, chemical inertness, stability as electrical contacts and resistance to high temperature oxidation, make them indispensable in many industrial applications.

One of the largest single uses for PGMs is in the production of automobile exhaust catalysts. This use is expected to increase significantly in the future as governments move to introduce or improve automobile emission standards.

In addition to uses by industry or in the manufacture of jewellery, there has been a rapid increase in the production of platinum coins, wafers and small bars in recent years in response to growing investment demand. During 1988, the Royal Canadian Mint received approval for the production and marketing of a platinum coin to be known as the "Platinum Maple Leaf". It is expected that this program will utilize up to 4.7 million grams of platinum per annum. Almost 2000 kg were produced and sold in 1988.

After reaching highs in 1986 of US\$665/oz. and \$151/oz., respectively, platinum and palladium prices eased somewhat during 1987 and 1988, although they remain relatively high by historical standards. Platinum prices averaged US\$555.96/oz. in 1987 while palladium averaged US\$131.40/oz. This strength has resulted from forecast increases in consumption, particularly for automobile catalysts; continued concern over the supply of these metals from the Republic of South Africa, the largest supplier of PGMs to the western world; and the threat of a renewed round of inflation.

With favourable market conditions, extensive PGM exploration is continuing in several countries. In Canada, a number of promising deposits have been identified on the basis of preliminary exploration programs. It is expected that several of these will eventually be brought into production. The most advanced property is a deposit at Lac des Îles, near Thunder Bay, Ont. where production was expected to begin in 1989.

Tin. Until recently, Canada was regarded principally as a tin consumer rather than a tin producer, although small amounts of tin concentrate were recovered as a byproduct of base metal mining at Kimberley, BC.

Canada relies on imports for its tin metal requirements except for small amounts recovered from recycled solders and detinning, and from primary tin-lead alloys production. Consumption fell from a 4 500 t peak in 1980 to about 3 600 t in 1987. Tin metal consumption is concentrated in tin plate produced by two large Canadian steelmakers.

Canada's first major tin mine started production under Rio Algom ownership at East Kemptville, NS in late 1985. The opening of the mine unfortunately coincided with the collapse of tin prices following the cessation of tin price-stabilizing efforts of the International Tin Council. After

the price collapse, Rio Algom wrote off its investment in the mine, and ownership reverted to a consortium of creditor banks. In late 1987, Rio Algom announced its interest in repurchasing the mine.

Mining at East Kemptville, NS continued throughout 1987 and production of tin in concentrates is slowly rising toward an annual capacity of about 4200 t. Tin byproduct recovery at base metal mines at Timmins, Ont. and Kimberley, BC, has been discontinued.

Molybdenum. Canada ranks third among the world's leading molybdenum producers, accounting for about 16% of the western world's total supply. In 1987, Canada's molybdenum was produced solely in British Columbia as production from Quebec had been discontinued. Ontario and New Brunswick mines have installed capacities during recent years for the recovery of byproduct molybdenum at some time in the future.

Canadian mine shipments were marginally higher in 1987 at 11 581 t versus 11 251 t in 1986. A large increase at Canada's only primary molybdenum mine, which reopened during the second half of 1986, was partly offset by lower output from byproduct producers.

Canada is one of the world's major exporters of molybdenum, shipping most of its annual output to Western Europe and Japan.

Cobalt. Canada is the world's fourth largest producer of cobalt, following Zaire, Zambia and the Soviet Union. In 1987, Canada produced about 2880 t of cobalt valued at \$54 million, compared to 2300 t valued at \$47 million in 1986.

Cobalt is recovered as a byproduct of nickel-copper production. Mines are in operation at Sudbury, Ont. and Thompson, Man. At Port Colborne, Ont., a cobalt refinery which has a capacity of 900 t/y of electrolytic cobalt rounds is in operation. The refinery was opened in 1983 and high quality cobalt metal is produced for use primarily in making superalloys. A refinery at Fort Saskatchewan, Alta. tolls and custom refines cobalt obtained from other producers, mostly from abroad.

A major use for cobalt is in superalloys where it improves the strength, wear and corrosion resistance of the alloys at elevated temperatures. The major application of cobalt-based superalloys is in turbine blades for aircraft jet engines and gas turbines for gas pipelines. Cobalt-based superalloys normally contain 45% or more cobalt.

Other important uses for cobalt are in magnets and abrasion-resistant and heat-resistant tools. Cobalt is also used to promote the adherence of enamel to steel in applications such as appliances,

and the adherence of steel to rubber in the manufacture of steel-belted tires.

Magnesium. Canada's only current producer of primary magnesium operates a 6000 t/y reduction facility at Haley, Ont. about 80 km west of Ottawa.

In October of 1986, a Norwegian company formally announced that it would build a new 60000 t/y magnesium smelter at Bécancour, Que., with the possibility of increasing smelting capacity to over 200000 t/y at some future date. The plant was expected to commence production in 1989, and cost about \$500 million, creating 350 permanent jobs.

In 1987, Magnesium International Corporation and Alberta Natural Gas formed a joint-venture, MagCan, to produce magnesium metal at High River, Alta. and a 12500 t/y plant was targeted for completion by November 1989. As in the case of the Norsk Hydro project in Quebec, the plant could be expanded by increments of 25000 t/y to an ultimate annual capacity of 62500 t, subject to market demand.

The largest single use for magnesium is as an alloying agent with aluminum. The addition of magnesium to aluminum imparts greater tensile strength, increased hardness and better corrosion resistance. The second largest use for magnesium is for structural applications of which pressure die-cast products constitute the most important component. Anticipated growth in demand for magnesium metal is primarily related to such die-casting applications for the automotive sector. Recent increases in the price of aluminum, which averaged US\$1.05/lb. in 1988 compared to US\$1.35/lb for magnesium, should encourage more extensive use of magnesium which is 30% lighter than aluminum.

Columbium. Canada is the world's second largest producer of columbium, with an annual output of about 15% of the world's total supply. Production in 1987 was 2630 t of contained columbium pentoxide, a decline of 10% compared with 1986. The decline was due to a nine-week shutdown at Canada's only mine in late August due to high inventories and weak demand. Canada's concentrate is produced near Chicoutimi, Que. from pyrochlore ore, one of the three pyrochlore operations in the world; the other two are in Brazil.

Canada became the only major supplier of columbium concentrate following a decision by the Brazilian producers in 1981 to convert all their output to intermediate products.

Development work is continuing on a rare metal deposit that includes columbium and tantalum near Great Slave Lake, NWT.

Tantalum. The Bernic Lake, Man. tantalum operation resumed production in July 1988; tantalum

production had been suspended since the end of 1982. The resumption of production was made possible as a result of gradual market recovery and the signing of long-term contracts with a number of processors abroad. The mine was the world's largest supplier of tantalum concentrate prior to its shutdown in 1982.

Cadmium. Metallic cadmium is recovered as a byproduct at electrolytic zinc plants at Trail, BC, Flin Flon, Man., Timmins, Ont. and Valleyfield, Que. and at the lead smelter in Bathurst, NB. The Bathurst operation recently announced plans to build a facility to convert cadmium bearing dust into soluble sponges. Projected cadmium production is 200 t/y and the plant was expected to be in operation before 1990.

Cadmium is used mainly for coating iron and steel products to protect them against oxidation and to give them a desirable aesthetic appearance. Other major uses are in pigments, chemicals and rechargeable batteries.

Production in all forms increased dramatically from 1484 t, valued at \$5.7 million in 1986, to an estimated 2294 t valued at \$13.1 million in 1987. Most zinc ores in Canada and zinc concentrates contain recoverable cadmium. The largest production comes from mines in Ontario, British Columbia and the Northwest Territories.

Tungsten. Canada, which normally ranks third as a world producer of tungsten, had no production in 1987. The mining operation at Tungsten, NWT was closed in 1986 due to declining prices. Canada's other tungsten producer located in New Brunswick, terminated production in 1985 after a short period of operation.

10.4 Non-metallics

Asbestos. Canada ranked second after the USSR in world asbestos production in 1987 and accounted for nearly 20% of world output. Canadian shipments of asbestos fibre were 665 300 t valued at \$235.2 million; the peak was in 1979 when shipments were 1.49 million tonnes valued at \$609 million. All Canadian production consists of chrysotile asbestos; in 1987 about 77% was from Quebec, 13% from British Columbia and 10% from Newfoundland.

Canada, the world's largest exporter of asbestos in 1987, shipped about 95% of its production to more than 70 countries. The United States and Japan, the largest markets, together accounted for 27% of Canadian exports; exports to developing countries were 42% by volume.

General weakness in markets is reversing especially due to increased demand in the Far East,

and prices are firming. Canada's total production was marketed in 1987.

With the unanimous adoption of the International Labour Organization Convention on safe use of asbestos in 1986, the health controversy seems to have been dealt with, especially with respect to chrysotile asbestos, as it emphasizes that with proper controls and regulation, chrysotile asbestos can be used safely.

Future demand for asbestos will depend mainly on the degree to which world public opinion regards asbestos as a continuing health problem, and the Canadian asbestos industry's ability to meet competition.

Clay and clay products. In 1987, shipments of clays produced from domestic sources amounted to an estimated \$210 million, compared with \$179.5 million in 1986. The increase was due mainly to higher levels of activity in Ontario.

In 1987 there was no commercial production of kaolin in Canada. Imports of kaolin in 1987 were estimated at 260 000 t valued at \$50 million. Several potential sources of kaolin are being investigated in Southern Saskatchewan and Northern Ontario. These silica sand-kaolin deposits could be mined by open-pit and produce china clay suitable for the paper and the paint industries in Ontario, Western Canada and Northwestern United States.

Potash. Canada is the world's largest exporter of potash, accounting for just over 40% of world trade. Shipments in 1987 were 7.5 million tonnes (potassium dioxide equivalent) valued at \$706 million; the industry operated at 68% of capacity. There are eight mines in Saskatchewan, with four controlled by the Saskatchewan Potash Corp., a provincial government Crown corporation which controls 40% of the provincial capacity.

In New Brunswick, the first potash mine went into production in 1983 and a second mine went into production in 1985; full capacity operations were achieved by 1988, at 1.16 million tonnes.

About 95% of world potash output of 29.0 million tonnes is used in fertilizer, the balance for industrial purposes.

Salt. Rock salt is produced at four underground mines located in Ontario, Quebec and Nova Scotia and is produced as a byproduct from two potash mines in New Brunswick and Saskatchewan. Brine is also produced in 11 plants for the manufacture of evaporated salt and chloralkalies.

Canada, the world's fifth largest producer of salt, had total shipments of 10.3 million tonnes in 1987, valued at \$235 million.

In 1987, the Canadian industry operated at close to 83% of the effective production capacity. Rock salt accounted for 66% of total salt shipments. Ontario is the largest producer of salt accounting for two-thirds of total production, followed by Alberta and Quebec. In 1986, domestic salt consumption amounted to 8.1 million tonnes of which 50% was used for ice and snow control on streets and highways, and 45% for the manufacture of chemicals, namely chloralkalies. About 25% of total production is exported, almost totally to the United States.

Sulphur. Canada is the world's third largest producer of sulphur-in-all-forms, a leading producer of elemental sulphur and the major exporter of brimstone, accounting for 40% of global trade. In 1987, shipments remained similar to the previous year's level at 7.7 million tonnes, while the value of production declined 20% to \$774 million, due to lower prices resulting from a weak demand for fertilizers. Contract prices for offshore exports of elemental sulphur from Vancouver showed a steady decline during 1987, starting at US\$102-110 a tonne in January and dropping to US\$88-99 a tonne in the second half of 1987, a 25% drop from 1986.

Alberta is the major producer of elemental sulphur accounting for 85% of total production. Canadian sulphur in elemental form is obtained as a byproduct in the production of sour natural gas, in the extraction of oil from tar sands and in the refining of petroleum. Sulphur dioxide, produced in the roasting of sulphide ores of nickel, copper, zinc and lead, is recovered as byproduct liquid sulphur dioxide and as sulphuric acid at several Canadian smelters. In addition to these involuntary producers of sulphur, a small amount of pyrrhotite is roasted expressly for sulphuric acid.

In 1987, about 90% of sulphur shipments were in elemental form with 75% going to offshore markets and 13% to the United States; the remainder was consumed in Canada, mainly for the manufacture of fertilizers, and pulp and paper.

Over the past 10 years, Canadian inventory remelts have complemented production. From a peak of 21 million tonnes in 1971, inventories declined to about 7 million tonnes by the end of 1987. With the current annual remelt rate, stocks are forecast to be depleted by 1991; however, further development related to gas and tar sand projects are expected to increase the production tonnage of elemental sulphur, up to 8 million tonnes by the year 2000, a 34% increase over 1987 tonnage. Meanwhile, Canada's offshore market share is likely to decrease, down to 30%, due to new developments in the USSR and Saudi Arabia.

Nepheline Syenite. Canada is the western world's largest producer and exporter of nepheline syenite, from two operations on Blue Mountain, 40 km northeast of Peterborough, Ont.

Shipments totalled 467 500 t in 1986 and 499 100 t in 1987. Value of shipments were, respectively, \$18.9 million and \$21.4 million.

Most production is exported to the United States. Nepheline syenite is preferred to feldspar as a source of essential alumina and alkalis in glass manufacture. Other uses include the manufacture of ceramics, enamels, paints, papers, plastics and foam rubber.

10.5 Structural materials

In 1987, total value of construction in Canada was estimated at \$80,856 million, up approximately 13% from 1986. Construction represented 14.5% of Gross Domestic Product, in 1987, and housing starts were approximately 246,000 units, up 23% from 1986.

Gypsum. Canada supplied about 24% of US requirements for crude gypsum. Canadian production in 1987 was approximately 8.8 million tonnes.

Cement. The Canadian industry has capacity to produce 16.6 million tonnes of cement from a total of 20 plants. In 1987, cement production was 12.2 million tonnes which represented a capacity utilization of 73%. Plants utilizing the dry process constituted over 70% of Canadian capacity.

Mineral aggregates. Production of mineral aggregates, sand, gravel and crushed stone in 1987 was approximately 366 million tonnes.

10.6 Manufactured metals

Aluminum. Canada, the second largest aluminum producer in the western world, produced 1.54 million tonnes of aluminum in 1987. Canada is the largest aluminum exporter in the world, with exports currently of about 1.1 million t/y. The United States is the largest market for Canadian aluminum exports; shipments to the US totalled 859 253 t in 1987.

Three companies operate primary aluminum smelters in Canada. One company has five smelters in Quebec, located at Jonquière, Isle-Maligne, Grande Baie, Beauharnois and Shawinigan, and one at Kitimat, BC, with a combined annual capacity of 1 075 000 t. The company also operates an alumina refinery at Jonquière; its output is consumed by the company's smelters in the region. The other two companies each operate one smelter in Quebec; one

at Baie-Comeau, with a capacity of 272 000 t/y, and the other at Bécancour, with a capacity of 230 000 t/y.

With abundant supplies of hydroelectric power, Canada is one of the lowest cost aluminum-producing nations in the world. With an improvement of aluminum market prices during 1987, a 200 000 t/y smelter project at Laterrière, Que., which had been shelved in 1985 due to depressed market conditions, was reinstated. In addition, a 115 000 t/y expansion to the Bécancour facility and a new 270 000 t/y smelter at Sept-Îles were under consideration.

Iron and steel. Although the Canadian iron and steel industry is relatively small by world standards, it remains internationally competitive. Production in 1987 was 14.7 million tonnes, up 4.5% from 1986. The value of Canadian production in 1987 was almost \$8 billion. Improved demand is attributed to good levels of consumer spending and a significant rise in the demand for structural components related to high capital spending.

Canada continued to be a net exporter of steel. Over 80% of exports go to the United States, which experienced high demand in 1987, partly due to favourable currency values.

The Canadian industry continues to make heavy investments to improve product quality and increase productivity. In 1987 such expenditures totalled more than \$1 billion, and included additional continuous casting equipment and vacuum degassing facilities designed to improve steel quality. By 1995, about 95% of Canadian steel will be continuously cast.

10.7 Government and the industry

10.7.1 Fiscal incentives

Although mineral industry enterprises are subject to federal income tax, certain benefits granted under the Income Tax Act serve as incentives to exploration and development. Up-to-date information on income tax allowances which apply to the mining industry may be obtained from Revenue Canada, Taxation and appropriate provincial tax offices.

The federal government also facilitates the flow-through share financing of primary exploration by way of the Canadian Exploration and Development Incentive Program (CEDIP). Information on this program may be obtained from the Department of Energy, Mines and Resources and regional CEDIP offices.

10.7.2 Technical services

The provinces own the natural resources within their borders and control exploration, develop-

ment, conservation and primary production of mineral resources. Provinces support mining activities by supplying geoscientific data, mainly in the form of maps and reports. In general, a wide range of programs is available to stimulate the industry, although there is variation from province to province. They issue prospecting permits, record mining claims and supply mine inspection services.

The federal government complements many of these services in consultation with the provinces. Federal-provincial mineral development agreements are a prominent vehicle for co-operation.

10.8 Mining legislation

10.8.1 Federal jurisdictions

The matter of legislative jurisdiction, in relation to the exploration and exploitation of mineral resources, offshore of the East and West Coasts of Canada has not been totally resolved. The Supreme Court of Canada, in an opinion of November 1967, stated in part that, as between Canada and the province of British Columbia, Canada has proprietary rights in and legislative jurisdiction over "lands, including the mineral and other natural resources, of the seabed from the ordinary low-water mark on the coast outside the harbours, bays, estuaries and other similar inland waters, to the outer limit of the territorial sea of Canada". In May 1982, the Supreme Court of Canada ruled that between Canada and Newfoundland, legislative jurisdiction in respect of the mineral resources of the seabed and the sub-soil of the continental shelf offshore of Newfoundland, in the region of the Hibernia oil discovery, falls to Canada.

Some near-shore coastal waters fall under provincial jurisdiction. In 1984, the Supreme Court of Canada ruled that the seabed of the Strait of Georgia falls within the boundaries of the province of British Columbia as established at the time of the colony of Vancouver Island and has remained unchanged since that date.

The Department of Energy, Mines and Resources (EMR Canada) has responsibility for administration and enforcement of legislation and regulations relating to mineral resources off Canada's coasts, in the Hudson Bay and Hudson Strait regions, and for federally owned mineral rights that become available for development in the provinces. The Department of Indian and Northern Affairs (INA Canada) is responsible for mineral rights in the Yukon and Northwest Territories, and in Canada's Arctic offshore regions.

Generally, the administration and management of mineral resources and rights on and/or beneath Indian reserves is the responsibility of INA Canada. Minerals can be disposed under the mining, or oil and gas regulations by either tender or negotiated agreement, following the respective Indian band approval.

10.8.2 Federal mining laws and regulations

Mining exploration and development is carried out in Yukon under the Yukon Quartz Mining Act and the Yukon Placer Mining Act. In the Northwest Territories, including Arctic coastal waters, operations are governed by the Canada mining regulations. Regulations for placer-gold dredging, coal mining and quarrying are common to both territories. In Yukon, mining rights may be acquired by staking claims. A one-year lease may be obtained to prospect for the purposes of placer mining, renewable for additional one-year periods; a 21-year lease, renewable for a like period, may be obtained under the Yukon Quartz Mining Act.

Under Canadian mining regulations, a prospector must be licensed. Staked claims must be converted to lease or relinquished within 10 years. In certain areas, a system of exploration over large areas is allowed by permit. Any individual 18 years of age or more or any joint stock company in Canada may hold a prospector's licence.

10.8.3 Provincial laws and regulations

In general, Crown mineral lands within provincial boundaries (with the exception of those in Indian reserves, national parks and other lands under federal jurisdiction) are administered by the province. Mineral rights on Crown lands may be acquired or leased from the province, if not already held by others.

Crown land purchases or grants currently do not include the mineral rights, which reside with the province. Some early land grants in the four western provinces, and in Quebec, New Brunswick and Newfoundland included certain mineral rights which can be conveyed along with the land to a purchaser. Otherwise mineral rights must be acquired separately from the owner or leaseholder thereof if in private hands, or acquired or leased from the province if in the public domain. However, there are some exceptions, mainly surface minerals, which the land owner retains, as explained under the heading "Quarrying regulations" following. In Nova Scotia this exception is broadened, where the land owner retains the mineral rights to gypsum, agricultural limestone and building materials. Mining activities may be

classified as placer, general minerals (veined minerals and bedded minerals), fuels (coal, petroleum and gas) and quarrying.

In provinces where placer deposits occur, regulations define the size of placer holdings, the terms under which they may be acquired and the royalties to be paid.

General minerals are sometimes described as quartz, lode, or minerals in place. The most elaborate laws and regulations apply in this division pertaining to prospector or miner licences to search for mineral deposits, staking and recording claims, time limits, recording fees where required, work of a specified cost to be performed in some provinces, and renewals of development licences. Mining taxation is applied most frequently as a percentage of net profits of producing mines.

Coal, petroleum and natural gas. In provinces where coal occurs, specifications include the size of holdings, and their conditions of work and rental. In the search for petroleum and natural gas, an exploration permit or reservation is usually required; in Saskatchewan, Alberta and British Columbia leases usually follow when a discovery of oil or gas is made; exploration costs may be applied to the lease rental. In other provinces, discovery of oil or gas is usually a prerequisite to obtaining a lease or grant of a limited area, subject to carrying out drilling obligations and paying a rental, a fee, or a royalty on production.

Quarrying regulations define the size of holdings and the terms of lease or grant concerning quarryable substances (ordinary stone, building and construction stone, sand, gravel, clay, limestone and peat moss). In several provinces, such substances belong to the owner of the land, but regulations vary. For further details on quarrying regulations and other mining information mentioned in this section, refer to provincial mining legislation.

10.9 Energy, Mines and Resources Canada

The Department of Energy, Mines and Resources was created in October 1966 from the former department of mines and technical surveys. It has jurisdiction over federal matters related to energy, mines, minerals and other non-renewable resources, technical surveys and explosives. The department is responsible for federal mineral and energy policies and for conducting technical surveys and research related to mineral and energy resources. The surveys and research are conducted in three sectors: the Mineral and Energy

Technology Sector; the Surveys, Mapping and Remote Sensing Sector; and the Geological Survey of Canada Sector.

10.9.1 Research and technology

CANMET. Since its inception in 1907, the Canada Centre for Mineral and Energy Technology (CANMET) has provided scientific and technological support to the Canadian mineral and energy industries through research and development (R&D) in industrial technology, health and safety, and environmental protection.

The CANMET program in mining R&D concentrates on mine design, mine automation and the environmental safety of mine workers. It includes research on rock mechanics, the development of mining methods and better and safer equipment, explosives testing, mining environments, the certification of equipment, fire and explosive hazards, tailings control, and assessment of uranium and coal reserves.

CANMET investigates the production, properties and performance of metallic and non-

metallic materials and develops new processing and fabricating techniques to increase productivity, decrease pollution and energy consumption, and produce new advanced industrial materials such as metal and ceramic composites. CANMET research emphasizes the development and repair of structural materials for the resource and transportation industries including pulp and paper processing equipment, oil and gas pipelines, offshore structures, petrochemical plants, and steel for ships. In addition, R&D covers the production of new types of ceramics including refractories, sensors and toughened materials for high wear and fracture resistance.

The branch operates pilot scale facilities and special research instruments that are beyond the normal requirements of individual companies for day-to-day use but which are made available to companies on a cost-recovery basis. These special facilities include a rolling mill, an experimental foundry, a mineral processing plant, mobile coal preparation plants, special analytical equipment and the largest rock press in Canada.

Sources

- 10.1 Information Systems Division, Resource Strategy and Information Branch, Mineral Policy Sector, Energy, Mines and Resources Canada (EMR Canada); Industry Division, Statistics Canada.
- 10.2 Regional and Intergovernmental Affairs Division, Mineral Strategy Branch, Mineral Policy Sector, EMR Canada.
- 10.3 - 10.6 Mineral and Metal Commodities Branch, Mineral Policy Sector, EMR Canada; Industry Division, Statistics Canada.
- 10.7 Economic and Financial Policy Analysis Branch, Mineral Policy Sector, EMR Canada.
- 10.8 Ocean Mining Division, Resource Strategy and Information Branch, Mineral Policy Sector, EMR Canada.
- Regional and Intergovernmental Affairs Division, Mineral Strategy Branch, Mineral Policy Sector, EMR Canada.
- 10.9 Mineral and Energy Technology Sector, EMR Canada.

Co-ordinator, A.B. Siminowski, Information Systems Division, Resource Strategy and Information Branch, Mineral Policy Sector, EMR Canada.

FOR FURTHER READING

Selected publications from Statistics Canada

- General Review of the Mineral Industries, Mines, Quarries and Oil Wells, annual. 26-201
- Canada's Mineral Production, Preliminary Estimates, annual. 26-202
- Metal Mines, annual. 26-223
- Non-metal Mines, annual. 26-224
- Quarries and Sand Pits, annual. 26-225

More information about these publications is available from Statistics Canada. See Appendix F for a complete list of Statistics Canada offices.

TABLES

- .. not available

... not appropriate or not applicable

— nil or zero

-- too small to be expressed
- e estimate

p preliminary

r revised

certain tables may not add due to rounding

10.1 Value of mineral production¹

Year	Total value \$'000	Value per capita \$	Year	Total value \$'000	Value per capita \$	Year	Total value \$'000	Value per capita \$
1886	10,221	2.23	1930	279,874	27.42	1975	13,346,994	588.05
1890	16,763	3.51	1935	312,344	28.84	1980	31,841,758	1,331.49
1895	20,506	4.09	1940	529,825	46.55	1981	32,420,159 ^r	1,331.90 ^r
1900	64,421	12.15	1945	498,755	41.31	1982	33,831,494	1,373.59
1905	69,079	11.51	1950 ²	1,045,450	76.24	1983	38,539,005	1,548.62
1910	106,824	15.29	1955	1,795,311	114.37	1984	43,789,031	1,742.91
1915	137,109	17.18	1960	2,492,510	139.48	1985	44,729,629 ^r	1,763.72 ^r
1920	227,860	26.63	1965	3,714,861	189.11	1986	32,445,946	1,267.87
1925	226,583	24.38	1970	5,722,059	268.68	1987 ^p	36,038,609	1,406.38

¹ Includes fuels.
² Value of Newfoundland production included from 1950.

10.2 Value of mineral production¹, by class, selected years, and by province, 1983-87 (thousand dollars)

Year and province or territory	Metallics	Non-metallics	Structural materials	Other minerals	Total
1970	3,073,344	480,538	450,446	...	4,004,328
1975	4,795,476	939,180	958,982	...	6,693,639
1980	9,696,956	2,532,361	1,668,577	...	13,897,894
1981	8,753,468	2,708,452 ^r	1,776,974 ^r	135,634 ^r	13,374,528 ^r
1982	6,874,197	1,973,801	1,729,584	215,536	10,793,118
1983	7,398,944	1,907,209	1,833,973	244,772	11,384,898
1984	8,670,372	2,366,529	1,951,483	401,405	13,389,789
1985	8,709,411	2,733,463 ^r	2,125,219	41,114	13,609,207 ^r
1986	8,797,700	2,522,181	2,341,123	21,615	13,682,619
1987 ^p	10,928,465	2,480,440	2,640,775	33,719	16,083,399
1983					
Newfoundland	752,370	23,398	31,235	—	807,003
Prince Edward Island	—	—	726	—	726
Nova Scotia	—	67,723	46,774	—	114,497
New Brunswick	421,281	16,633	38,385	15	476,314
Quebec	1,169,797	383,855	363,568	121,736	2,038,956
Ontario	2,673,080	165,577	686,580	97,966	3,623,203
Manitoba	486,532	11,809	72,266	9,159	579,766
Saskatchewan	145,677	704,490	45,739	1,487	897,393
Alberta	260	443,387	279,178	—	722,825
British Columbia	1,191,846	90,337	221,004	843	1,504,030
Yukon	61,549	—	1,438	—	62,987
Northwest Territories	496,552	—	47,080	13,566	557,198
1984					
Newfoundland	920,165	34,873	24,186	—	979,224
Prince Edward Island	—	1,109	805	—	1,914
Nova Scotia	—	68,453	73,136	—	141,589
New Brunswick	485,981	43,549	42,178	11,406	583,114
Quebec	1,220,467	342,455	422,317	181,938	2,167,177
Ontario	3,314,898	219,431	753,711	162,747	4,450,787
Manitoba	532,158	14,723	86,422	9,157	642,460
Saskatchewan	379,562	904,363	44,483	2,069	1,330,477
Alberta	247	621,915	250,318	472	872,952
British Columbia	1,085,766	115,658	207,882	2,479	1,411,785
Yukon	65,038	—	5,105	—	70,143
Northwest Territories	666,090	—	40,940	31,137	738,167

10.2 Value of mineral production¹, by class, selected years, and by province, 1983-87 (thousand dollars) (concluded)

Year and province or territory	Metallics	Non-metallics	Structural materials	Other minerals	Total
1985					
Newfoundland	815,845	27,980	25,902	—	869,727
Prince Edward Island	—	—	1,917	—	1,917
Nova Scotia	—	77,797 ^r	76,051	—	153,848 ^r
New Brunswick	359,501	67,527	46,011	4,232	477,271
Quebec	1,303,927	502,490	436,857	—	2,243,274
Ontario	3,461,405	219,104	859,942	683	4,541,134
Manitoba	571,535	15,579	93,486	832	681,432
Saskatchewan	471,494	650,977	51,316	1,764	1,175,551
Alberta	396	1,031,441	296,484	480	1,328,801
British Columbia	1,080,463	128,636	224,843	793	1,434,735
Yukon	56,807	267	2,995	—	60,069
Northwest Territories	588,038	11,665	9,415	32,330	641,448
1986					
Newfoundland	768,268	25,444	23,627	—	817,339
Prince Edward Island	—	—	1,754	—	1,754
Nova Scotia	—	91,019	77,054	20,705	188,778
New Brunswick	312,466	118,813	42,266	—	473,545
Quebec	1,223,506	490,682	476,350	—	2,190,538
Ontario	3,464,716	238,465	1,039,015	139	4,742,335
Manitoba	534,970	17,756	115,327	—	668,053
Saskatchewan	488,824	560,848	53,892	—	1,103,564
Alberta	594	839,483	274,239	—	1,114,316
British Columbia	1,199,898	117,882	219,548	517	1,537,845
Yukon	162,340	1	13,760	—	176,101
Northwest Territories	642,118	21,788	4,292	254	668,452
1987^p					
Newfoundland	710,318	29,147	26,701	1,650	767,816
Prince Edward Island	—	—	1,917	—	1,917
Nova Scotia	2,960	88,324	95,964	31,699	218,947
New Brunswick	481,131	142,539	44,212	—	667,882
Quebec	1,491,308	501,210	535,243	—	2,527,761
Ontario	4,109,568	255,354	1,210,729	—	5,575,651
Manitoba	759,759	26,779	122,714	—	909,252
Saskatchewan	638,222	657,902	53,596	—	1,349,720
Alberta	329	641,696	306,361	—	948,386
British Columbia	1,505,789	122,110	230,958	—	1,858,857
Yukon	439,859	—	7,345	—	447,204
Northwest Territories	789,221	15,379	5,035	370	810,005

¹ Excludes fuels.

10.3 Gross domestic product at factor cost, in 1981 prices, principal mining industries (million dollars¹)

Mining industry	1982	1983	1984	1985	1986	1987 ^p
Metal mines						
Placer gold and gold quartz	726.4	759.9	845.9	920.5	1,157.3	1,330.4
Iron	556.6	409.1	479.2	621.6	595.6	593.9
Other metal mines	2,327.9	2,528.3	3,611.1	3,421.6	3,694.6	4,064.7
Non-metal mines (except coal)						
Asbestos	221.0	186.9	224.6	198.0	158.6	162.8
Mineral fuels						
Coal	491.7	576.0	920.0	951.6	858.8	933.2
Crude oil and natural gas	10,008.4	10,881.6	11,235.6	11,999.2	11,727.7	12,380.3
Total, mines (incl. milling) quarries and oil wells²						
	16,958.5	18,057.9	20,555.6	21,441.9	20,906.9	21,844.1

¹ 1981 dollars.² Non-additive.

10.4 Quantity and value of mineral production¹

Mineral		Quantity ('000)				
		1983	1984	1985	1986	1987 ^P
Metals						
Antimony	kg	385	554	1 076	3 805	3 575
Bismuth	"	253	166	201	153	178
Cadmium	"	1 193	1 605 ^T	1 717	1 484	2 294
Calcium	"	...	...	...	...	...
Cesium	"	...	...	...	...	...
Cobalt	"	1 410	2 123	2 067	2 297	2 877
Copper	"	653 040	721 826	738 637	698 527	767 300
Gold	g	73 512	83 446	87 562	102 899	117 834
Ilmenite	t	...	...	...	...	...
Indium	g	...	...	...	...	...
Iron ore	t	32 962	39 930	39 502	36 167	37 552
Iron, remelt	"	...	...	...	...	...
Lead	kg	271 961	264 301	268 292	334 342	390 503
Lithium	"	...	...	...	...	...
Magnesium	"	...	...	...	...	...
Molybdenum	"	10 194	11 557 ^T	7 852	11 251	11 581
Nickel	"	125 022	173 725	169 971	163 639	187 805
Niobium	g	1 745	2 767	...	...	...
Platinum group	"	6 965	10 369	10 534	12 190	13 489
Rhenium	kg	...	...	...	...	...
Selenium	"	266	463	361	353	496
Silver	"	1 197	1 327	1 197	1 088	1 250
Strontium	"	...	...	...	...	...
Tantalum	"	...	...	39	39	36
Tellurium	"	16	19	19	20	27
Tin	"	140	209	120	...	...
Tungsten	"	1 126	4 196	4 031	2 470	...
Uranium	"	6 823	10 272	10 441	11 502	13 202
Yttrium	"	...	...	...	...	...
Zinc	"	987 713	1 062 701	1 049 275	988 173	1 329 408
Non-metals						
Arsenious trioxide	kg	...	...	...	...	...
Asbestos	t	858	837	750	662	665
Barite	"	45	64	71	40	41
Fluorspar	"	...	...	...	...	...
Gemstone	"	...	...	...	...	...
Graphite	"	...	...	...	...	...
Gypsum	"	7 507	7 775	7 761 ^T	8 803	8 812
Magnesite	"	...	...	...	...	...
Marl	"	...	...	...	...	...
Mica	"	...	...	...	...	...
Nepheline syenite	"	523	521	467	467	499
Peat	"	529	541	643	738	720
Perlite	"	...	...	...	...	...
Potash (K ₂ O)	"	6 294	7 527	6 661	6 753	7 465
Pumice	"	...	...	...	...	...
Quartz	"	2 303	2 659	2 669	2 640	2 560
Salt	"	8 602	10 235	10 085	10 332	10 294
Serpentine	"	...	...	...	...	...
Soapstone, talc	"	97	123	127	123	141
Sodium antimonate	"	...	...	...	...	...
Sodium sulphate	"	454	389	366	371	340
Sulphur gases	"	678	844	822	758	803
Sulphur, elemental	"	6 631	8 353	8 102	6 966	6 888
Titanium dioxide	"	...	...	...	...	...
Tremolite	"	...	...	...	...	...
Mineral structurals						
Clay products ²		3	3	3	3	3
Cement	t	7 871	9 240	10 192	10 611	12 205
Lime	"	2 232	2 249	2 212	2 243	2 271
Sand and gravel	"	233 408	233 759	256 183	257 677	260 265
Stone	"	67 651	81 754	86 632	97 602	105 675

Value (\$'000)

	1983	1984	1985	1986	1987 ^P
Metals					
Antimony	2,093	3,163	6,476	12,332	13,158
Bismuth	1,267	1,964	3,943	1,413	1,891
Cadmium	3,657	7,754	6,245	5,673	13,050
Calcium	...	...	...	...	...
Cesium	...	...	...	...	...
Cobalt	23,563	61,127	71,960	46,623	54,466
Copper	1,364,397	1,365,695	1,466,932	1,426,393	1,844,588
Gold	1,230,886	1,252,283	1,219,653	1,689,292	2,242,858
Ilmenite	...	...	...	...	...
Indium	...	...	...	...	...
Iron ore	1,269,924	1,482,352	1,462,254	1,342,666	1,254,248
Iron, remelt	108,549	134,827	...	...	...
Lead	160,512	195,292	154,845	227,654	412,762
Lithium	...	...	...	...	...
Magnesium	...	...	...	...	...

10.4 Quantity and value of mineral production¹ (concluded)

Mineral	Value (\$'000)				
	1983	1984	1985	1986	1987 ^P
Metals (continued)					
Molybdenum	87,710	106,158	74,359	90,111	92,648
Nickel	781,458	1,166,140	1,217,388	979,101	1,288,531
Niobium	12,133	18,778	..	..	..
Platinum group	...	..	..	..	..
Rhenium	...	...	...	...	...
Selenium	2,687	11,893	7,869	6,059	9,178
Silver	544,723	461,868	333,839	275,011	373,681
Strontium	...	...	...	...	...
Tantalum	..	..	3,045	3,470	2,358
Tellurium	521	511	645	706	801
Tin	2,013	3,761	1,893	...	...
Tungsten	...	...	...	...	...
Uranium	667,672	901,573	1,002,127	1,042,334	1,121,099
Yttrium	...	...	...	...	...
Zinc	1,135,179	1,495,233	1,315,791	1,200,630	1,693,665
Non-metals					
Arsenious trioxide	...	...	...	...	...
Asbestos	391,294	379,275	298,596	234,053	235,168
Barite	4,878	6,974	5,503	4,215	3,886
Fluorspar	...	...	...	...	...
Gemstone	641	1,118	823	1,287	1,953
Graphite	...	...	...	...	...
Gypsum	59,297	61,562	71,164 ^r	83,072	87,909
Magnesite	7,825	8,145	20,266	..	..
Marl	...	...	...	...	...
Mica	...	...	...	...	...
Nepheline syenite	18,131	17,866	17,898	18,922	21,404
Peat	47,810	51,816	63,772	80,152	82,384
Perlite	...	...	...	...	...
Potash (K ₂ O)	645,767	867,540	629,547	584,304	705,826
Pumice	...	...	...	...	...
Quartz	38,467	40,845	42,536	41,640	44,308
Salt	172,787	210,191	215,362	239,466	235,420
Serpentine	...	...	...	...	...
Soapstone, talc	7,996	11,154	13,352	14,182	16,119
Sodium antimonate	...	...	...	...	...
Sodium sulphate	42,636	37,702	33,871	33,012	26,040
Sulphur gases	42,322	63,200	86,342	72,614	93,269
Sulphur, elemental	427,358	609,141	1,026,202	857,584	650,762
Titanium dioxide	...	...	...	...	...
Tremolite	...	...	...	...	...
Mineral structurals					
Clay products ²	132,330	136,795	138,246	179,515	210,208
Cement	606,101	717,282	788,357	824,344	976,025
Lime	156,677	157,645	182,377	171,359	177,900
Sand and gravel	619,400	546,328	609,638	677,250	729,147
Stone	319,465	393,432	406,601	488,655	547,495
Other minerals²	244,773	401,405	41,114	21,615	33,719
Total, all minerals	11,384,899	13,389,788	13,609,206 ^r	13,682,625	16,083,401

In this table only ... mean confidential and ... mean included in other minerals.

¹ Excludes fuels.² Bentonite and diatomite are included in clay products beginning in 1986. From 1983 to 1985 they were included in other minerals.³ Not applicable.**10.5 Producers' shipments of copper (tonnes), by province, and total value**

Province or territory and value	1971	1982	1983	1984	1985	1986	1987 ^P
Newfoundland	12 682	3 731	—	1 146	—	—	—
Nova Scotia	15	—	—	—	—	—	—
New Brunswick	9 313	13 125	11 369	7 800	6 774	6 298	7 767
Quebec	167 669	94 977	63 741	67 618	73 531	51 622	56 378
Ontario	274 306	158 220	219 803	292 220	284 692	264 870	280 634
Manitoba	50 135	48 810	67 164	67 537	69 071	65 369	71 791
Saskatchewan	10 111	4 898	6 203	4 798	4 976	3 506	2 474
British Columbia	127 287	280 969	282 754	280 638	299 560	306 855	348 246
Yukon	2 328	7 510	1 904	—	10	6	9
Northwest Territories	625	215	102	69	23	1	—
Total	654 471	612 455	653 040	721 826	738 637	698 527	767 299
Value	\$'000						
	760,016	1,195,083	1,364,397	1,365,695	1,466,932	1,426,392	1,844,588

10.6 Producers' shipments of nickel (tonnes), by province, and total value

Province and value	1971	1982	1983	1984	1985	1986	1987 ^P
Quebec	679	—	—	—	—	—	—
Ontario	195 729	62 564	88 451	133 048	131 035	121 851	131 528
Manitoba	69 461	26 017	36 571	40 677	38 936	41 788	56 277
British Columbia	1 154	—	—	—	—	—	—
Total	267 023	88 581	125 022	173 725	169 971	163 639	187 805
Value \$'000	800,064	600,936	781,458	1,166,140	1,217,388	979,100	1,288,531

10.7 Iron ore shipments and production of pig iron and steel ingots and castings

Year	Iron ore shipments						Production of pig iron '000 t	Production of steel ingots and castings '000 t
	Newfoundland '000 t	Quebec '000 t	Ontario '000 t	British Columbia '000 t	Total Quantity '000 t	Value \$'000		
1971	19 846	11 219	10 141	1 751	42 957	55,136	7 834	11 047
1982	15 806	12 984	3 633	775	33 198	1,201,256	8 000	11 871
1983	18 405	10 247	3 810	497	32 959	1,269,924	8 567	12 832
1984	21 184	14 020	4 555	171	39 930	1,482,352	9 643	14 699
1985	20 192	14 875	4 347	88	39 502	1,462,254	9 665	14 635
1986	19 184	13 471	3 461	51	36 167	1,342,666	9 249	14 081
1987 ^P	18 775	15 500	3 214	64	37 553	1,254,248	9 719	14 737

10.8 Producers' shipments of lead (tonnes) from Canadian ores, by province, and total value

Province or territory and value	1971	1982	1983	1984	1985	1986	1987 ^P
Newfoundland	12 230	1 180	—	4 845	—	—	—
Nova Scotia	376	—	—	—	—	—	—
New Brunswick	59 334	81 475	70 346	71 732	68 375	66 590	79 433
Quebec	587	—	—	—	—	—	—
Ontario	8 088	5 697	6 473	9 478	3 812	6 288	8 500
Manitoba	182	730	519	817	741	590	594
British Columbia	112 458	83 657	112 942	85 148	116 811	91 947	67 210
Yukon	98 582	35 493	520	2 083	1 470	35 091	100 267
Northwest Territories	76 035	63 955	81 161	90 198	77 083	133 836	134 499
Total	367 872	272 187	271 961	264 301	268 292	334 342	390 503
Value \$'000	109,488	197,335	160,512	195,292	154,845	227,653	412,761

10.9 Producers' shipments of zinc (tonnes), by province, and total value

Province or territory and value	1971	1982	1983	1984	1985	1986	1987 ^P
Newfoundland	18 899	28 139	35 358	42 620	32 730	5 712	13 358
New Brunswick	146 523	230 299	225 054	232 792	197 503	161 807	231 410
Quebec	158 230	67 002	53 688	58 249	75 812	37 126	93 200
Ontario	331 780	260 544	288 528	303 425	280 475	265 248	323 057
Manitoba	22 667	31 435	49 007	48 854	64 688	61 463	66 164
Saskatchewan	7 844	4 945	5 879	6 160	5 663	3 527	1 431
British Columbia	138 551	75 183	95 289	95 508	108 072	137 583	118 656
Yukon	105 748	54 537	27	173	109	50 634	154 479
Northwest Territories	203 497	213 523	234 883	274 920	284 223	265 073	327 653
Total	1 133 739	965 607	987 713	1 062 701	1 049 275	988 173	1 329 408
Value \$'000	418,161	1,036,096	1,135,179	1,495,233	1,315,791	1,200,630	1,693,665

10.10 Producers' shipments of gold (kilograms), by province, and total value

Province or territory and value	1971	1982	1983	1984	1985	1986	1987 ^P
Newfoundland	228	141	—	34	—	—	1
Nova Scotia	—	—	—	—	—	—	1
New Brunswick	132	205	346	781	283	374	442
Quebec	20 119	25 831	27 349	28 632	30 104	28 342	29 200
Ontario	35 271	20 068	23 761	28 292	32 262	46 279	54 070
Manitoba	935	1 729	2 194	2 154	2 162	2 555	3 753
Saskatchewan	807	271	135	188	225	14	946
Alberta	2	11	15	16	28	36	17
British Columbia	2 781	7 710	8 072	7 656	6 720	9 249	11 925
Yukon	450	2 656	3 006	2 960	3 065	3 547	5 106
Northwest Territories	9 590	6 113	8 634	12 732	12 713	12 503	11 810
Total	70 315	64 735	73 512	83 446	87 562	102 899	117 834
Value \$'000	79,903	968,012	1,230,886	1,252,283	1,219,653	1,689,292	2,242,858

¹ Confidential.**10.11 Producers' shipments of silver (kilograms), by province, and total value**

Province or territory and value	1971	1982	1983	1984	1985	1986	1987 ^P
Newfoundland	17 530	3 000	—	7 000	—	—	—
Nova Scotia	1 720	—	—	—	—	—	—
New Brunswick	157 310	230 000	198 000	217 000	175 000	163 000	208 000
Quebec	136 171	55 000	46 000	47 000	61 000	62 000	123 000
Ontario	581 064	351 000	419 000	541 000	456 000	348 000	336 000
Manitoba	21 595	25 000	33 000	36 000	40 000	37 000	38 000
Saskatchewan	7 426	5 000	5 000	5 000	6 000	3 000	2 000
British Columbia	238 694	499 000	407 000	361 000	379 000	380 000	397 000
Yukon	178 774	95 000	15 000	54 000	47 000	73 000	133 000
Northwest Territories	91 209	51 000	74 000	59 000	33 000	22 000	13 000
Total	1 431 493	1 314 000	1 197 000	1 327 000	1 197 000	1 088 000	1 250 000
Average price per kilogram (Canadian funds) \$	50.16	315.98	455.07	348.05	278.90	252.77	298.94
Value \$'000	71,797	415,204	544,723	461,868	333,839	275,011	373,681

10.12 Quantity and value of producers' shipments of uranium (U₃O₈), by province

Year	Ontario		Saskatchewan		Total	
	Quantity t	Value \$'000	Quantity t	Value \$'000	Quantity t	Value \$'000
1971	3 180	..	546	..	3 726	..
1976	4 441	186,439	1 972	55,390	6 413	241,829
1981	4 859	525,806	2 648	268,406	7 507	794,212
1982	5 092	589,057	2 551	248,411	7 643	837,468
1983	4 767	546,306	2 056	121,366	6 823	667,672
1984	4 552	544,779	5 720	356,794	10 272	901,573
1985	4 499	552,561	5 942	449,566	10 441	1,002,127
1986	4 752	566,134	6 750	476,200	11 502	1,042,334
1987 ^P	4 364	509,235	8 838	611,864	13 202	1,121,099

10.13 Quantity and value of producers' shipments of asbestos

Year	Quantity '000 t	Value \$'000
1971	1 483	203,999
1981	1 122	548,406
1982	834	364,795
1983	858	391,294
1984	837	379,275
1985	750	298,596
1986	662	234,053
1987 ^P	665	235,168

10.14 Producers' shipments of potash

Year	Quantity (K ₂ O eq.) '000 t	Value \$'000
1971	3 629	134,955
1981	6 549	990,418
1982	5 309	630,562
1983	6 294	645,767
1984	7 527	867,540
1985	6 661	629,546
1986	6 753	584,304
1987 ^p	7 465	705,826

10.15 Producers' shipments of salt (thousand tonnes), by province, and total value

Province and value	1971	1982	1983	1984	1985	1986	1987 ^p
Nova Scotia	806	..	..	..	..	1	1
New Brunswick	—	—	—	—	—	1	1
Quebec	..	..	..	..	..	1	1
Ontario	3 785	5 461	5 480	6 412	5 829	6 240	5 724
Manitoba	24	—	—	—	—	—	—
Saskatchewan	190	434	358	402	437	473	448
Alberta	222	863	916	1 264	1 404	1 304	1 470
Total	5 027	7 940	8 602	10 235	10 085	10 332	10 294
Value \$'000	40,111	156,620	172,787	210,191	215,362	239,466	235,420

¹ Confidential.**10.16 Quantity and value of sulphur produced and sold**

Item	Quantity ('000 t)						
	1971	1982	1983	1984	1985	1986	1987 ^p
Sulphur in smelter gases ¹	561	627	678	844	822	758	803
Producers' shipments of pyrite and pyrrhotite	288	20	—	—	—	—	—
Gross weight ²	141	9	—	—	—	—	—
Sulphur content	2 857	6 945	6 631	8 353	8 102	6 966	6 888
Sales of elemental sulphur ³							
	Value (\$'000)						
	1971	1982	1983	1984	1985	1986	1987 ^p
Sulphur in smelter gases ¹	4,632	42,027	42,322	63,200	86,342	72,614	93,269
Producers' shipments of pyrite and pyrrhotite	1,162	220	—	—	—	—	—
Sales of elemental sulphur ³	21,300	569,928	427,358	609,141	1,026,202	857,584	650,762

¹ Includes sulphur in acid made from roasting zinc sulphide concentrates at Arvida and Port Maitland.² Excludes pyrite and pyrrhotite used to produce iron residues or sinter.³ Recovered from sour natural gas and nickel sulphide ores.**10.17 Producers' shipments of gypsum (thousand tonnes), by province, and total value**

Province and value	1971	1982	1983	1984	1985	1986	1987 ^p
Newfoundland	509	409	553	531	518	486	440
Nova Scotia	4 436	4 480	5 397	5 476	5 479 ^r	6 264	6 034
New Brunswick	70	—	—	—	—	—	—
Ontario	634	574	907	1 183	1 114	1 321	1 439
Manitoba	118	109	190	173	196	247	431
British Columbia	313	415	460	412	454	485	497
Total	6 080	5 987	7 507	7 775	7 761 ^r	8 803	8 811
Value \$'000	15,083	46,608	59,297	61,562	71,164 ^r	83,072	87,908

10.18 Production and exports of nepheline syenite

Year	Production		Exports	
	Quantity '000 t	Value \$'000	Quantity '000 t	Value \$'000
1971	469	6,206	372	5,333
1981	588	16,770	476	15,258
1982	550	17,324	414	15,765
1983	523	18,130	398	16,310
1984	521	17,866	387	16,629
1985	467 ¹	17,898 ¹	351	16,300
1986	467	18,922	338	17,744
1987 ^P	499	21,404	356	18,662

10.19 Producers' shipments and value, imports, exports and apparent consumption of cement

Year	Shipments (sold or used)		Imports '000 t	Exports ¹ '000 t	Apparent consumption ² '000 t
	Quantity '000 t	Value \$'000			
1971	8 234	183,374	51	806	7 479
1981	10 145	665,936	680	1 579	9 246
1982	8 426	673,653	232	1 752	6 906
1983	7 871	606,101	238	1 512	6 597
1984	9 240	717,282	236	2 130	7 346
1985	10 192	788,357	373	2 486	8 079
1986	10 611	824,344	491	2 635	8 467
1987 ^P	12 205	976,025	586	2 803	9 988

¹ Standard portland cement.² Shipments plus imports less exports.**10.20 Producers' shipments of sand and gravel (thousand tonnes), by province, and total value**

Province or territory and value	1971	1982	1983	1984	1985	1986	1987 ^P
Newfoundland	5 048	2 839	4 057	3 123	2 568	2 343	2 650
Prince Edward Island	1 410	1 136	1 174	271	588	501	540
Nova Scotia	5 447	5 309	8 136	8 180	8 829	7 889	7 575
New Brunswick	4 522	6 206	5 668	7 401	9 177	8 982	9 650
Quebec	37 743	41 932	37 006	35 189	32 520	29 607	31 850
Ontario	70 426	62 256	68 316	67 245	77 796	87 666	94 500
Manitoba	15 145	10 284	9 909	11 693	12 224	13 050	13 000
Saskatchewan	10 270	8 512	7 999	9 737	11 433	14 190	13 850
Alberta	16 945	46 092	43 789	45 494	49 287	45 149	44 350
British Columbia	26 538	24 618	40 969	35 103	43 774	42 413	38 600
Yukon	—	463	480	3 074	1 185	4 902	2 400
Northwest Territories	—	6 625	5 905	7 249	6 802	986	1 300
Total	193 494	216 274	233 408	233 759	256 183	257 677	260 265
Value \$'000	152,628	554,608	619,400	546,328	609,638	677,250	729,147

10.21 Producers' shipments of stone¹ (thousand tonnes), by province, and total value

Province or territory and value	1971	1982	1983	1984	1985	1986	1987 ^P
Newfoundland	185	357	279	558	600	476	535
Nova Scotia	1 491	679	1 296	4 377	4 452	4 023	4 830
New Brunswick	1 298	2 261	2 087	2 035	2 394	2 344	2 465
Quebec	34 033	25 060	27 303	30 946	31 130	36 066	37 925
Ontario	25 618	23 582	27 939	33 992	37 180	45 477	51 000
Manitoba	918	2 345	1 137	2 120	4 155	4 100	4 125
Alberta	167	264	286	258	225	229	260
British Columbia	2 982	4 310	4 915	6 739	6 333	4 403	4 085
Yukon	—	—	—	—	—	116	110
Northwest Territories	—	323	2 409	729	163	368	340
Total	66 692	59 181	67 651	81 754	86 632	97 602	105 675
Value \$'000	96,537	263,249	319,465	393,433	406,601	488,655	547,495

¹ Excludes limestone used in Canadian lime and cement industries.

10.22 Value (total sales) of producers' shipments of clay products from domestic clays, by province (thousand dollars)

Province	1971	1982	1983	1984	1985	1986	1987 ^P
Newfoundland	80	860	1,381	1,546	1,342	1,273	960
Nova Scotia	1,844	4,500	5,900	6,430	7,069	7,616	7,730
New Brunswick	627	2,200	3,200	3,313	4,153	3,026	2,850
Quebec	6,565	14,047	20,667	20,945	19,131	29,621	37,250
Ontario	30,538	52,229	74,673	83,461	89,126	109,998	130,866
Manitoba	469	1,735	3,395	2,156	2,159	3,471	3,739
Saskatchewan	1,140	3,349	3,571	3,561	3,812	5,700	5,917
Alberta	4,031	11,220	12,207	8,153	7,828	10,158	14,063
British Columbia	4,900	5,853	7,336	7,230	3,624	8,652	6,833
Total	50,194	95,993	132,330	136,795	138,246	179,515	210,208

Source

10.1 – 10.22 Information Systems, Mineral Policy Sector, Energy, Mines and Resources Canada.

CHAPTER 11

ENERGY

CHAPTER 11

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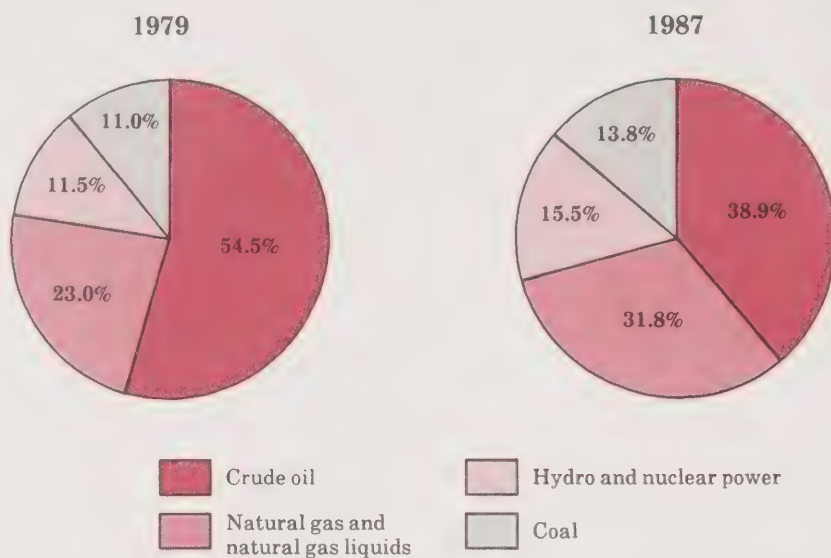
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PRIMARY ENERGY CONSUMPTION

The Canadian government has been an active participant in the development of energy policy at both the international level and, nationally, at the federal/provincial level. In 1987, primary energy available for consumption in Canada was 8 105 petajoules, an increase of 3.7% over 1986. Of the total primary energy consumption, 38.9% was from crude oil and 31.8% from natural gas. During 1987, Canada's net energy trade surplus increased by \$151 million to \$7,539 million.

CHAPTER 11

ENERGY

11.1 International scene

In an effort to raise oil prices to US\$113 per cubic metre (m^3), the Organization of Petroleum Exporting Countries (OPEC) oil ministers announced, in December 1986, that the cartel would cut production by 7.2% to 916 million m^3 per year. Iraq did not sign the agreement. For the first few months of 1987, OPEC succeeded in maintaining this designated production ceiling and prices stabilized around US\$113/ m^3 . In the second quarter of 1987, when seasonal demand for crude increased, some OPEC producers began to sell crude in excess of established production quotas and by the third quarter, OPEC production averaged 1 114 million m^3 per year. Year-end prices fell to below US\$100/ m^3 as OPEC over-production continued and non-OPEC production, particularly in Third World countries, increased by almost 5%.

Canada is one of 21 member nations in the International Energy Agency (IEA) which is an autonomous agency of the Organization for Economic Co-operation and Development. The IEA's main purpose is to organize its members to deal with any oil crisis which would be considered as a major economic threat. Therefore, intermittently, oil-sharing tests are run to determine allocation requirements.

Canada is also an active participant in such bodies as the Organization for Economic Co-operation and Development (OECD), the North Atlantic Treaty Organization (NATO), the United Nations (UN) and the World Energy Conference (WEC). The WEC, a London-based organization established in 1924, is dedicated to the goal of promoting the developments and peaceful use of energy resources. The Fourteenth Congress of the WEC was scheduled to take place in Montreal in 1989, with a theme of Energy in the Future.

The Petro-Canada International Assistance Corporation (PCIAC) was established in 1980 to assist developing countries in reducing their dependence on imported oil. During 1987, PCIAC carried out development projects in over 20 countries and participated in multilateral programs

with other international aid agencies in South America and the South Pacific. In 1987, PCIAC contracted the services of 341 Canadian firms and consultants providing companies with international experience and exposure, new commercial links and overseas market opportunities.

11.2 Impact of world oil price change

The collapse of world oil prices in 1986 created severe financial difficulties for the Canadian oil and gas industry. Lower oil prices resulted in a reduction of industry cashflow, a deterioration in industry's incentive to invest in conventional exploration and development activities as well as in riskier non-conventional projects.

The stabilization of world oil prices in the range of US\$113 to \$126/ m^3 throughout most of 1987, the early termination of the Petroleum and Gas Revenue Tax and the introduction of the Canadian Exploration and Development Incentive Program, resulted in considerably improved industry cashflow during 1987, up 22% to \$9.4 billion. The industry's net income increased from a loss of \$1.8 billion in 1986 to a profit of \$3.2 billion in 1987.

In the conventional sector of the oil and gas industry, wells drilled in Western Canada increased to 6,828 in 1987, an increase of 20.7% over the number of wells in 1986, but still down substantially from the 11,968 wells in 1985. Activity in non-conventional oil and gas exploration and production also increased as \$1.8 billion in new investments was announced for major energy projects such as the Syncrude expansion, the Wolf Lake and Cold Lake projects in Alberta and the NewGrade upgrader project in Saskatchewan.

Canadian ownership of the petroleum industry based on upstream revenues, declined from 46.7% in 1986 to 45.1% in 1987, and Canadian control decreased from 49% to 45.2%. Canadian ownership and control of total petroleum-related revenues — upstream and downstream — were down 1.3 and 3 percentage points in 1987 from

1986 to reach 43.8% and 37.4% respectively, mainly as a result of takeover activity following the 1986 collapse of crude oil prices.

11.2.1 Economic growth and energy security

Fundamental changes in the thrust of energy policy, combined with the 1986 oil price collapse, have affected the various sectors of the energy economy in different ways. While the effects of deregulation have been generally positive for both producers and consumers, the industry and the producing provinces have sustained severe financial and employment losses as a result of the decline in oil prices.

In March 1987, the federal government announced a major new cash incentive program designed to stimulate employment, investment and activity in the oil and gas industry. The Canadian Exploration and Development Incentive Program (CEDIP) provided cash incentives of 33 1/3% of eligible exploration and development expenses undertaken in Canada on or after April 1, 1987, up to a maximum of \$10 million in eligible expenses per company per year. By the end of 1987, the government had received about 1,600 applications seeking \$132 million of incentive payments under CEDIP. Of these, approximately 600 payments were made, totalling \$28.5 million.

The Government of Canada's approach is guided by the principle that the best means of allocating resources in the energy sector and sharing the benefits and burdens of energy resource development is through the workings of a competitive market place.

This approach was reflected in the following: the implementation of the Natural Gas Markets and Prices Agreement in 1987; the continuation of the move toward deregulated natural gas prices, which began November 1, 1986; and the National Energy Board's announcement, on September 9, 1987, of the adoption of a new market-based procedure for determining the surplus of natural gas in Canada available for export. In addition, the Government of Canada examined its policy regarding exports of electricity and the promotion of interprovincial electricity trade, and on August 21, 1987, the federal government announced its export review process and the steps it intended to take, in consultation with the provinces, to reform the current system of electricity exports regulation.

Other activities during 1987. The negotiation of Memoranda of Understanding with the provinces and territories on energy efficiency and diversity was completed. The agreements encourage co-operative federal-provincial participation and

private sector investment, development and promotion of products rather than direct government financial support to consumers and industry.

The contribution phase of the Forest Industry Renewable Energy Program terminated with 179 projects completed, providing a total of 1.3 million m³ of oil equivalent per annum and important environmental credits in the area of industrial and municipal waste management.

Under the Remote Community Demonstration Program, a total of 28 projects involving federal, provincial and territorial departments and agencies, were approved. The project provides financial support to remote communities to identify and adopt alternative-to-oil energy supply and conservation methods.

The Super Energy-Efficient Home Program (R-2000) certified 1,600 homes in 1987-88, designed courses for architects and engineers, and revised training courses for program builders and mechanical contractors. R-2000 ventilation standards were partly adapted to the draft of the 1990 National Building Code, and were widely accepted by industry and provincial groups.

11.2.2 Legislation

On April 4, 1987, the Canada-Newfoundland Atlantic Accord Implementation Act, Bill C-6, was proclaimed. This legislation is intended to implement the Atlantic Accord. It incorporates the management and revenue-sharing provisions of the Atlantic Accord, as well as existing federal petroleum legislation — the Canada Petroleum Resources Act and the Oil and Gas Production and Conservation Act.

On July 21, 1988, Royal Assent was given to Bill C-75, an Act to Implement the Canada-Nova Scotia Offshore Petroleum Resources Accord, which was signed in August 1986 by the federal and Nova Scotia governments. It continues the \$200 million federally-financed offshore Development Fund established in 1984 legislation, forgives repayment of these funds by Nova Scotia and establishes a federally-funded \$25 million drilling fund for Nova Scotia Resources (Ventures) Ltd. to accelerate the drilling of wells.

11.3 Energy supply and demand

During 1987, Canada's net energy trade surplus increased by \$151 million to \$7,539 million. Canada is a net exporter of oil and other various types of energy. Although the exports of other energy products such as coal, natural gas and electricity increased, their value did not increase. The value of all energy product exports reached \$13,188 million for 1987, with the increased value of crude

oil exports accounting for most of the increase. Imports also climbed, reaching \$5,649 million, up \$988 million from 1986. Imports of coal, up \$600 million, and crude oil, up \$300 million, accounted for most of the increase.

Despite low oil prices, 1987 marketable production of crude oil, excluding the estimated amount of oil produced and used in oil sands and heavy oil operations, was 95 451 thousand m^3 , up 4038 thousand m^3 compared to the previous year. This increase was led by impressive gains in heavy oil and synthetic crude production. During the same period, refined oil product demand increased by 3.9%. Generally, production levels of other energy sources, such as coal, natural gas and electricity, also increased.

Canadian primary energy production was 10250 PJ (petajoules) in 1987, an increase of 5.3% from 1986. Natural gas, including Natural Gas Liquids (NGLs), accounted for 36.6% of production, crude oil 36.0%, hydro and nuclear, including nuclear steam, 13.8% and coal 13.6%.

In 1987, primary energy available for consumption in Canada was 8 105 PJ, an increase of 3.7% over 1986. Of the total primary energy consumption, 38.9% was from crude oil, 31.8% from natural gas and NGLs, 15.5% from hydro and nuclear and 13.8% from coal.

11.4 Oil and natural gas

11.4.1 Production and consumption

Crude oil and equivalent. In 1987 the production of crude oil and equivalent (excluding own use at oil sands plants) in Canada increased by 4.0 million m^3 , an increase of 4.4%. Production of light, medium and heavy crude increased 2.6 million m^3 , synthetic crude by 1.1 million m^3 and pentanes increased by 0.4 million m^3 over levels of 1986. Two full-scale oil sands plants in Alberta are continuing to produce synthetic crude oil — for the period 1985 to 1987, they had an average production rate of near 15.4 million m^3 per year, accounting for 15% of total crude oil production in Canada. The consumption of crude oil and equivalent in Canada during 1987 was 81.9 million m^3 , an increase over 1986 of 3.0 million m^3 .

In 1981, the average wellhead price of crude in Canada rose by \$20/ m^3 over the price paid in 1980, from \$97/ m^3 to \$117/ m^3 . Crude prices continued to rise in Canada and peaked in 1985 at almost \$221/ m^3 . It was during the fourth quarter of the year that the collapse in world oil prices occurred also causing Canadian prices to plunge to an average of \$114/ m^3 in 1986. Since 1986,

crude oil prices have remained unstable due to global supply-demand imbalances. In 1987, Canadian oil prices rose by about \$24/ m^3 .

Natural gas. Production of natural gas in 1986 declined 225 PJ from the 1985 level, but rose again by 266 PJ in 1987 to reach 3 402 PJ. Exports of natural gas followed a similar pattern and declined 195 PJ in 1986, but rose by 262 PJ in 1987 to reach 1 059 PJ. Final domestic usage, after declining 72 PJ in 1986, declined a further 19 PJ in 1987, down to 1 904 PJ, 4.6% lower than in 1985. Natural gas deregulation, the drop in international price of crude oil and warm winter weather in most of North America, have combined to cause serious marketing problems for gas producers. Although domestic demand has declined slightly, export volumes have increased and are expected to increase further, even though revenues from these volumes have declined. In the event that gas prices stay low, and large quantities remain shut-in throughout Western Canada, exploration will be reduced.

11.4.2 Exploration and development

After having completed a record 12,171 wells in 1985, the drop in oil and gas prices resulted in a drastic decline in drilling with only 5,763 wells drilled in 1986 and 6,905 in 1987. Two-thirds of all wells drilled in Canada have been drilled in Alberta. Many wells have been drilled in Canada's frontier regions, in such areas as the Arctic Islands, Beaufort Sea and off the East Coast. Commercial development in these areas has been slow due to the enormous cost involved. Cost of drilling a single well in these frontier areas has exceeded \$50 million. Current plans have focused on the development of oil reserves at Hibernia, off the coast of Newfoundland.

11.4.3 Reserves

Canada's crude oil and pentanes established reserves stood at 1079 million m^3 at the end of 1987, down slightly from the year-end volume of 1986. Natural gas established reserves at the end of 1987 were 2 692 billion m^3 , a decline of 53 billion m^3 , or 2.0%, from the 1986 level.

11.5 Oil refining

The Canadian refining industry closed a total of 12 refineries during the period of 1974-85 due to rationalization and a declining domestic demand. In 1987, one of the refineries formerly closed in Newfoundland was reopened to supply the export market. Demand declined 4.9% between 1984 and 1986, but in 1987 it increased 3.4% over the 1986 level, reaching 81 933 thousand m^3 .

In 1987, domestic demand for motor gasoline and diesel fuel oil increased 2.2% accounting for 57.2% of the increased domestic demand for petroleum products. There was a net export balance on petroleum product trade of 2 million m³ during 1987.

11.6 Pipelines

During 1987, the Interprovincial Pipeline completed a three-phase major expansion program between Edmonton, Alta. and Superior, Wisconsin. The final phase increased pipeline capacity by 15 000 m³ per day. The first and second phases had increased capacity by 12 000 and 25 000 m³ per day, respectively. Pipeline expansion was essential to accommodate higher-than-anticipated production levels of light and heavy crude oils. The pipeline operated at close to capacity throughout the year and during the months when demand exceeded capacity, apportionment of pipeline space was necessary.

11.7 Coal

Canada has abundant coal resources, including 6 billion tonnes of proven reserves, equivalent to about 100 year's supply at current production rates. In addition, there are 30 billion tonnes contained in known deposits which have not yet been fully delineated.

In 1987, coal production reached an all-time high of 61.2 million tonnes. Of this, 26.7 million tonnes, or 43.7%, was exported, mainly from British Columbia and Alberta mines, with small quantities shipped from Nova Scotia. Japan and Korea are Canada's major export customers. In 1987, 14.3 million tonnes were imported into Central Canada from US mines, mostly for use in the generation of electricity and steel-making. Overall, Canada was a net exporter of coal, with a trade surplus of \$945 million in 1987.

Within Canada, by far the largest use of coal is for the generation of electricity; 83.2% of the total domestic use of 50.3 million tonnes of coal is for electricity. In 1987, Alberta obtained 84.8% of its electricity from coal; Saskatchewan, 70.7%; Nova Scotia, 67.5%; Ontario, 24.0%; and New Brunswick, 11.0%.

Due to environmental considerations, Ontario Hydro is using increasing quantities of low-sulphur thermal coal from Western Canada. In the next few years, its total coal needs will decline as new nuclear capacity comes on stream, but Ontario's dependence on coal is expected to increase again in the mid 1990s. In the other provinces, coal demand is expected to grow

steadily. New technologies are being demonstrated to reduce emissions of sulphur and nitrogen oxides which contribute to acid rain. For the longer term, Canadian utilities are evaluating more efficient generating systems that produce less carbon dioxide emissions per unit of electricity.

The second largest use of coal is to produce coke used in steelmaking. Total consumption is expected to remain steady at about 6 million tonnes per year. In the next decade, new steelmaking technologies that do not use coke are expected to be gradually adopted.

11.8 Uranium

Canada maintained its position as the world's leading producer and exporter of uranium in 1987. Output from Canada's five primary uranium producers was estimated at 12 455 tU (tonnes uranium), up for the second consecutive year. Shipments of primary uranium in 1987 were estimated at 13 612 tU and valued at \$1,182 million, as compared with 11 502 tU (\$1,042 million) in 1986.

After several years of declining exploration activity, exploration expenditures rose modestly in 1986 to \$33 million and reached \$36 million in 1987. Exploration drilling decreased in 1986, as efforts were concentrated on established properties with proven resources. The outlook for Canada's uranium brightened considerably in 1987. The Canada-US Trade Agreement could ensure access to the US market, which is the largest in terms of uncommitted uranium demand. In the near to medium term, this market is crucial to Canada's uranium producers.

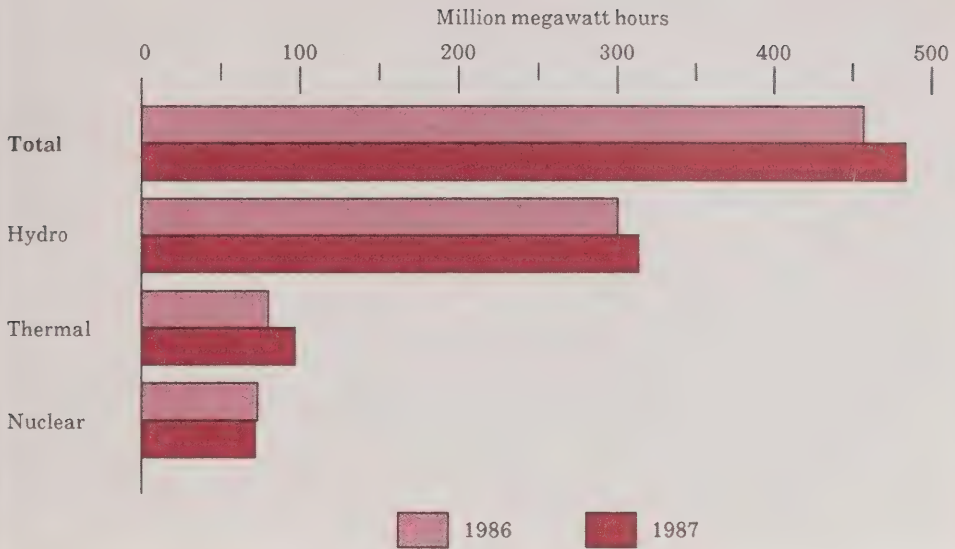
11.9 Electric power

11.9.1 Electricity generation

Electricity generation increased 5.8% in 1987 to 483 641 GWh (gigawatt hours). Of this total, 403 392 GWh met domestic demand, 47 426 GWh were for export and 36 274 GWh were for own use, transmission losses and other adjustments.

All provinces except Manitoba and Newfoundland reported increased electrical generation during 1987. However, due to a general lack of rainfall during the year, hydro generation was down in most provinces. With the exclusion of Quebec and British Columbia, hydro generation was down 7 086 GWh (-7.1%). Hydro generation in Quebec was up 5.5%, due to increased generating capacity and exports; in British Columbia, hydro generation was up 24.8% due to greater export demand which made use of new capacity put in place in 1985.

Chart 11.1

Electric energy generation

Energy sources of electricity generation changed significantly in 1987 from the previous year. The increase in coal use, from 36.5 million tonnes in 1986 to about 41.9 million tonnes in 1987, is attributed mainly to a 30.5% increase in coal-fired generation in Ontario. Use of petroleum, mainly heavy fuel oils, also increased, up from 1.5 million m³ in 1986 to 2.3 million m³ in 1987. This increase occurred in Newfoundland, Nova Scotia and New Brunswick. The collapse of world oil prices in 1986 provided an economic incentive for these three provinces to use more oil for electricity generation. Uranium use increased with the addition of Ontario's Bruce 3 reactor, and the return to service of the Pickering 1 nuclear reactor, following a shutdown for retubing.

In Newfoundland, Quebec, Manitoba and British Columbia, hydro generation accounted for more than 93% of the total generation. In 1987, in Alberta, 84.8% of total generation came

from coal-fired stations; in Saskatchewan, 70.6% and in Nova Scotia, 67.5% came from coal.

Ontario, Quebec and New Brunswick are the only three provinces with nuclear energy in Canada. In 1987, nuclear generation accounted for 15.1% of Canada's total electricity generation, 47.9% of Ontario's total, 40.5% of New Brunswick's and 3.0% of Quebec's. Electricity generation from natural gas is not significant except in Alberta where 9.9% comes from gas.

11.9.2 Consumption

A breakdown of Canadian electrical consumption in 1987, shows 42.1% was consumed in the industrial sector, 25.4% in the residential sector, 21.8% in the government and commercial sectors, 2.4% in the transportation and agriculture sectors and 8.3% in transmission and distribution losses. Exports of electricity in 1987 reached 47 426 GWh, an increase of 14.5% over the level of 1984.

Sources

11.1 - 11.9 Industry Division, Statistics Canada (Co-ordinator, Don Wilson); Energy Policy Co-ordination Branch, Energy Policy Sector, Department of Energy, Mines and Resources (Co-ordinator Paula Tisot).

FOR FURTHER READING

Selected publications from Statistics Canada

- Coal Mines, annual. 26-206
- The Crude Petroleum and Natural Gas Industry, annual. 26-213
- Refined Petroleum and Coal Products Industries, annual. 45-250
- Quarterly Report on Energy Supply-Demand in Canada, quarterly. 57-003
- Electric Power Statistics, Volume II: Annual Statistics, annual. 57-202
- Electric Power Statistics, Volume I: Annual Electric Power Survey of Capability and Load, annual. 57-204
- Electric Power Statistics, Volume III: Inventory of Prime Mover and Electric Generating Equipment, annual. 57-206
- Consumption of Purchased Fuel and Electricity by Manufacturing, Mining, Logging and Electric Power Industries, annual. 57-208
- Road Motor Vehicles, Fuel Sales, annual. 53-218
- Gas Utilities, monthly. 55-002

More information about these publications is available from Statistics Canada. See Appendix F for a complete list of Statistics Canada offices.

TABLES

- .. not available

... not appropriate or not applicable

— nil or zero

-- too small to be expressed
- e estimate

p preliminary

r revised

certain tables may not add due to rounding

11.1 Canada's energy summary¹

Item		1984	1985	1986	1987
Primary production	PJ	9 455	9 956	9 736	10 250
	% ²	10.1	5.3	-2.2	5.3
Gross availability ³	PJ	7 731	7 891	7 845	8 070
	%	4.7	2.1	-0.6	2.9
Net domestic consumption ⁴	PJ	7 006	7 206	7 210	7 383
	%	4.4	2.9	0.1	2.4
Producers' consumption	PJ	691	728	760	816
	%	3.4	5.4	4.4	7.4
Non-energy use	PJ	558	615	609	664
	%	11.2	10.2	-1.0	9.0
Energy use	PJ	5 758	5 871	5 867	5 918
	%	4.1	2.0	-0.1	0.9
Mining	PJ	264	255	228	232
	%	10.5	-3.4	-10.6	1.8
Manufacturing	PJ	1 580	1 623	1 664	1 734
	%	7.6	2.7	2.5	4.2
Industrial	PJ	1 893	1 928	1 940	2 012
	%	7.9	1.8	0.6	3.7
Transportation	PJ	1 584	1 625	1 622	1 709
	%	5.0	2.6	-0.2	5.4
Residential and farm	PJ	1 245	1 297	1 285	1 240
	%	-2.3	4.2	-0.9	-3.5
Government and commercial	PJ	1 037	1 020	1 021	957
	%	4.2	-1.6	0.1	-6.3
Degree days below 18 Celsius ⁵		4 361	4 520	4 221	3 965
	%	-0.3	3.6	-6.6	-6.1

¹ Measured in petajoules (PJ).

² Change from previous year.

³ Availability of each energy form (excluding crude oil) less production of coke, coke oven gas, thermal electricity and LPGs used in the production of refined petroleum products.

⁴ Net production of primary and secondary sources.

⁵ Relative temperature index for space heating purposes.

11.2 Canada's primary energy balance¹ (terajoules)

Year and item	Coal	Crude oil ²	Natural gas ³	NGLs ⁴	Electricity ⁵	Steam ⁶
1984						
Production	1 396 399	3 451 560 ^r	3 036 032 ^r	326 055	1 199 014	36 073 ^r
Exports	736 545	793 336	812 620	184 829	149 168	...
Imports	550 980	547 982	136	44	8 436	...
Stock variation ⁷	44 043	15 675	12 503	8 161	...	...
Other adjustments ⁷	586	4 707	9 297	3 291	...	...
Available	1 167 377	3 195 238 ^r	2 220 342 ^r	136 400	1 058 282	36 073 ^r
Transformed to other energy forms ⁸	1 118 266	3 195 238 ^r	67 528	44 147	...	...
Producers' own consumption	1 185	...	340 720 ^r	1 816	...	...
Non-energy use	604	...	171 816	...	...	...

11.2 Canada's primary energy balance¹ (terajoules) (continued)

Year and item	Coal	Crude oil ²	Natural gas ³	NGLs ⁴	Electricity ⁵	Steam ⁶
1984 (continued)						
Energy use — final demand	47 322	...	1 641 336	...	...	36 073 ^f
Industrial	42 862	...	683 134	...	...	36 073 ^f
Transportation	...	...	69 618	...	...	...
Agricultural	...	...	17 566	...	...	...
Residential	3 514	...	469 921	...	...	...
Public administration	295	...	20 125	...	...	...
Commercial and institutional	651	...	380 972	...	...	...
Unaccounted for	—	...	-1 058	...	...	...
1985						
Production	1 487 130	3 537 161 ^f	3 361 198 ^f	317 307	1 290 076	23 743
Exports	802 181	1 090 171 ^f	992 254	160 648	156 297	...
Imports	437 126	632 904	192	—	11 136	...
Stock variation	-2 602	8 266	-45 900	-11 069	...	...
Other adjustments ⁷	-2 592	25 700 ^f	10 456	3 934	...	...
Available	1 122 085	3 097 328 ^f	2 425 492 ^f	171 662	1 144 915	23 743
Transformed to other energy forms ⁸	1 063 471	3 097 328 ^f	55 936	51 201	...	...
Producers' own consumption	2 872	...	434 689 ^f	2 259	...	...
Non-energy use	4 512	...	174 829	...	...	...
Energy use — final demand	51 230	...	1 763 867	...	...	23 743
Industrial	46 496	...	722 302	...	...	23 743
Transportation	...	...	90 017	...	...	...
Agricultural	...	...	18 546	...	...	...
Residential	3 990	...	505 752	...	...	...
Public administration	200	...	19 987	...	...	...
Commercial and institutional	544	...	407 263	...	...	...
Unaccounted for	—	...	-3 829	...	...	...
1986 ^f						
Production	1 382 117	3 531 203	3 135 637	306 231	1 352 942	28 069
Exports	758 982	1 307 133	796 783	118 665	140 164	...
Imports	399 061	792 435	9 836	147	17 843	...
Stock variation	-18 439	-1 480	41 647	23 646	...	...
Other adjustments ⁷	-658	20 119	9 856	-371	...	...
Available	1 039 977	3 038 104	2 316 899	163 696	1 230 621	28 069
Transformed to other energy forms ⁸	980 352	3 038 104	61 097	40 783	...	...
Producers' own consumption	3 202	...	419 505	2 523	...	...
Non-energy use	6 637	...	148 245	...	...	...
Energy use — final demand	49 786	...	1 713 402	...	...	28 069
Industrial	45 191	...	723 954	...	...	28 069
Transportation	...	...	78 565	...	...	...
Agricultural	...	...	18 300	...	...	...
Residential	3 958	...	480 658	...	...	...
Public administration	139	...	20 530	...	...	...
Commercial and institutional	498	...	391 395	...	...	...
Unaccounted for	—	...	-25 350	...	...	...
1987						
Production	1 393 936	3 690 858	3 401 980	347 243	1 392 992	23 420
Exports	738 028	1 387 291	1 059 302	129 374	170 733	—
Imports	415 312	903 931	3 527	4 157	12 429	—
Stock variation	-51 014	43 768	-3 141	20 848	—	—
Other adjustments ⁷	-4 489	-8 475	9 117	14 707	—	—
Available	1 117 745	3 155 255	2 358 463	215 885	1 234 688	23 420
Transformed to other energy forms ⁸	1 059 355	3 155 255	57 032	67 123	...	...
Producers' own consumption	3 836	...	469 705	1 246	...	...
Non-energy use	4 855	...	149 708	...	...	...

11.2 Canada's primary energy balance¹ (terajoules) (concluded)

Year and item	Coal	Crude oil ²	Natural gas ³	NGLs ⁴	Electricity ⁵	Steam ⁶
1987 (continued)						
Energy use — final demand	49 699	...	1 697 165	...	...	23 420
Industrial	45 705	...	781 309	...	...	23 420
Transportation	...	...	96 442	...	...	...
Agricultural	...	...	18 229	...	...	...
Residential	3 601	...	457 675	...	...	...
Public administration	17	...	17 905	...	...	...
Commercial and institutional	376	...	325 605	...	...	...
Unaccounted for	—	...	-15 147	...	...	...

¹ The quantities of crude oil and natural gas shown here include an estimate of consumption of producers own production in the synthetic crude and heavy oil sectors. Data in this table may not agree with data presented in other tables due to method of computation.

² The general terms "crude oil" or "crude oil and equivalent" comprise conventional crude, condensate, pentanes, synthetic crude oil and experimental crude oil.

³ Modified gross production of natural gas, that is, gross production less reinjection and shrinkage.

⁴ Gas plant natural gas liquids, butane, propane and ethane.

⁵ Hydro and nuclear only.

⁶ Steam produced from nuclear sources.

⁷ Includes interproduct transfers as well as other adjustments.

⁸ For electricity and steam generation, coal coke production and for refined petroleum products.

11.3 Trade in energy (million dollars¹)

Item	1984	1985 ⁷	1986 ⁷	1987
Crude oil and equivalent				
Exports	4,404	5,972	3,775	4,855
Imports	3,376	3,700	2,885	3,179
Balance	1,028	2,272	890	1,676
Petroleum products ²				
Exports	1,676	1,957	1,283	1,361
Imports	1,411	1,631	1,265	1,443
Balance	265	326	18	-82
Natural gas				
Exports	3,923	4,011	2,524	2,527
Imports	—	—	—	—
Balance	3,923	4,011	2,524	2,527
Liquefied petroleum products ³				
Exports	1,106	979	670	663
Imports	136	122	197	164
Balance	970	857	473	499
Coal				
Exports	1,820	1,996	1,851	1,670
Imports	1,091	886	144	725
Balance	729	1,110	1,707	945
Coal products				
Exports	30	34	18	26
Imports	112	137	130	111
Balance	-82	-103	-112	-85
Electric energy				
Exports	1,378	1,425	1,086	1,200
Imports	13	8	9	9
Balance	1,365	1,417	1,077	1,191
Radioactive ores and concentrates				
Exports	334	234	167	278
Imports	100	76	..	..
Balance	234	158	167	278
Elements and isotopes				
Exports	541	591	675	608
Imports	15	28	31	18
Balance	526	563	644	590
Total				
Exports	15,212	17,199	12,049	13,188
Imports	6,254	6,588	4,661	5,649
Balance	8,958	10,611	7,388	7,539

¹ Quantities and/or values may not agree with those appearing in other tables of this section due to differences in method of measurement.

² Contains values of selected petroleum products including products destined for non-energy consumption such as asphalt and lubricating oils and grease.

³ Includes petroleum refinery and natural gas processing plant propane and butane.

11.4 Canada's crude oil imports, by country¹

Country	Quantity ('000 m ³)				Value (\$'000,000)			
	1984	1985	1986	1987	1984	1985	1986	1987
Algeria	1 196	1 161	—	—	284	284	—	—
Bahamas	—	—	—	157	—	—	—	19
Colombia	—	—	—	109	—	—	—	15
Egypt	306	116	—	—	70	27	—	—
Ecuador	111	—	—	—	25	—	—	—
Iran	743	600	1 807	617	171	138	220	94
Iraq	—	—	—	525	—	—	—	79
Libya	303	166	84	—	72	38	23	—
Mexico	2 595	2 117	1 192	949	572	471	157	134
Nigeria	1 061	968	2 334	1 642	250	229	367	250
Norway	—	679	469	505	—	91	53	80
Oman	—	—	—	381	—	—	—	50
Saudi Arabia	—	—	1 052	1 106	—	—	184	156
Tunisia	95	424	86	—	23	98	8	—
United Arab Emirates	—	—	—	348	—	—	—	44
United Kingdom	2 055	4 895	8 961	11 538	487	1,172	1,336	1,724
United States	2 331	1 314	1 305	1 000	501	290	184	138
Venezuela	3 921	3 556	2 525	1 916	866	818	311	252
Other countries	133	167	352	974	55	44	42	144
Total	14 850	16 163	20 167	21 767	3,376	3,700	2,885	3,179

¹ Quantities and/or values may not agree with those appearing in other tables of this section due to differences in method of measurement.

11.5 Crude oil and equivalent production and value

Item and province or territory	Production ¹ ('000 m ³)				Value (\$'000,000)			
	1984	1985	1986 [†]	1987	1984	1985	1986 [†]	1987
Crude oil								
Atlantic provinces ²	—	—	—	4	—	—	—	—
Ontario	90	112	136	135	20	25	17	19
Manitoba	793	821	823	782	170	181	95	109
Saskatchewan	10 813	11 588	11 688	12 078	2,180	2,370	1,172	1,511
Alberta	60 020	57 147	53 185	55 257	12,602	12,401	6,268	7,847
British Columbia	2 108	1 970	2 028	2 110	436	411	245	306
Northwest Territories	175	1 118	1 478	1 570	20	195	103	145
Canada, crude oil	73 999	72 756	69 338	71 936	15,428	15,583	7,900	9,937
Pentanes³								
Manitoba	—	—	1	—	—	—	—	—
Saskatchewan	30	26	29	33	6	5	3	4
Alberta	5 333	5 645	5 718	6 061	1,123	1,225	709	873
British Columbia	131	125	141	188	27	28	15	27
Northwest Territories	—	32	49	30	—	6	3	3
Canada, pentanes	5 494	5 828	5 938	6 312	1,156	1,264	730	907
Synthetic crude oil⁴								
Alberta	9 681	12 775	16 138	17 203	2,386	2,807	1,710	2,204
Total								
Atlantic provinces ²	—	—	—	4	—	—	—	—
Ontario	90	112	136	135	20	25	17	19
Manitoba	793	821	823	782	170	181	95	109
Saskatchewan	10 843	11 614	11 717	12 111	2,186	2,375	1,175	1,515
Alberta	75 034	75 567	75 041	78 521	16,111	16,433	8,687	10,924
British Columbia	2 239	2 095	2 169	2 298	463	439	260	333
Northwest Territories	175	1 150	1 527	1 600	20	201	106	148
Canada, total	89 174	91 359	91 413	95 451	18,970	19,654	10,340	13,048

¹ Marketable production.

² Includes offshore production.

³ A product of gas plants.

⁴ Includes experimental crude oil.

11.6 Petroleum supply and demand (thousand cubic metres)

Item	1984 ^f	1985 ^f	1986 ^f	1987
Supply				
Production of crude oil and equivalent ¹	89 711	91 925	91 968	95 980
Imports				
Crude oil and equivalent	14 230	16 435	20 577	23 473
Products	5 305	4 834	6 827	7 831
Sub-total, imports	19 535	21 269	27 404	31 304
Interproduct transfers				
LPGs ² received by refineries for blending	1 543	1 789	1 425	2 411
Propane and butane to natural gas liquids stream	-2 217	-2 227	-2 196	-2 486
Sub-total, interproduct transfers	-674	-438	-771	-75
Total, supply	108 572	112 756	118 601	127 209
Demand³				
Domestic demand				
Motor gasoline	32 942	32 759	32 876	33 228
Diesel fuel	15 063	15 740	15 190	15 909
Kerosene, stove oil	874	863	762	722
Light fuel oil	8 026	7 447	7 065	6 437
Heavy fuel oil	8 362	6 724	7 039	7 458
Aviation fuels	4 322	4 477	4 531	4 837
Non-energy products	7 307	8 037	7 994	8 360
Other ⁴	5 482	5 835	5 761	6 143
Sub-total, domestic demand	82 378	81 882	81 218	83 094
Exports				
Crude oil and equivalent	20 601	28 309	33 943	36 024
Products	8 093	9 365	8 550	9 852
Sub-total, exports	28 694	37 674	42 493	45 876
Total, demand	111 072	119 556	123 711	128 970
Inventory change and other adjustments	-2 500	-6 800	-5 110	-1 761

¹ Includes estimated production to cover own production used in the oil sands plants.

² LPG (liquefied petroleum gas).

³ Includes producers consumption as well as an estimate of consumption of producers own production in the synthetic crude and heavy oil sectors.

⁴ Includes still gas, petroleum coke and own consumption of refinery produced propane and butane.

11.7 Marketable natural gas production and value

Province or territory	Production ('000,000 m ³)				Value (\$'000,000)			
	1984	1985	1986	1987	1984	1985	1986	1987
New Brunswick	1	1	1	1	--	--	--	--
Ontario	486	521	504	508	61	65	66	62
Saskatchewan	1 225	1 614	2 132 ^f	2 428	62	93	153 ^f	157
Alberta	62 476	67 482	62 558	67 029	6,688	6,681	6,106	4,022
British Columbia	6 619	7 282	6 819	8 135	398	475	431	366
Yukon and Northwest Territories	179	229	201	166	18	20	22	9
Total	70 986	77 129	72 215 ^f	78 267	7,227	7,334	6,778 ^f	4,616

11.8 Natural gas supply and demand (million cubic metres)

Item	1984 ^f	1985 ^f	1986 ^f	1987
Supply				
Gross new production ¹	105 653	112 923	108 240	113 393
Reinjection and storage	11 808	12 029	14 033	14 155
Process shrinkage	11 727	12 306	12 554	13 438
Other losses and adjustments	15 885	15 629	14 948	13 420
Available natural gas	66 233	72 959	66 705	72 380
Imports	4	5	260	93
Interproduct transfers ²	245	276	261	241
Total, supply	66 482	73 240	67 226	72 714
Demand				
Domestic demand				
Industrial ³	19 600	20 356	19 162	20 707
Transportation	1 834	2 373	2 080	2 550
Residential and farm	12 839	13 819	13 207	12 583
Public administration	530	527	543	473
Commercial and institutional	10 034	10 734	10 360	8 609
Electrical generation	1 779	1 474	1 578	1 459
Non-energy use	4 525	4 608	3 924	3 958
Sub-total, domestic demand	51 141	53 891	50 854	50 339
Exports	21 402	26 153	21 090	28 009
Total, demand	72 543	80 044	71 944	78 348
Inventory change and other adjustments	-6 061	-6 804	-4 718	-5 634

¹ Includes an estimate of consumption of producers own production in the synthetic crude and heavy oil sectors.² Transfer of one product to another product stream which has similar characteristics.³ Includes any natural gas used to produce steam for sale.**11.9 Natural gas liquids production and value**

Item	Gas plant production ('000 m ³)				Value (\$'000,000)			
	1984	1985	1986 ^f	1987	1984	1985	1986 ^f	1987
Propane								
Manitoba	—	—	4	3	—	—	—	—
Saskatchewan	80	85	105	116	10	9	9	7
Alberta	5 087	5 032	4 715	5 122	614	564	376	306
British Columbia	60	69	209	231	6	6	12	9
Sub-total, propane	5 227	5 186	5 033	5 472	630	579	397	322
Butane								
Manitoba	—	—	1	1	—	—	—	—
Saskatchewan	48	49	60	65	7	8	5	7
Alberta	3 103	3 064	2 823	3 116	501	507	288	320
British Columbia	82	76	115	142	11	10	10	10
Sub-total, butane	3 233	3 189	2 999	3 324	519	525	303	337
Ethane								
Saskatchewan	54	43	10	—	5	3	1	—
Alberta	5 633	5 468	5 147	6 453	539	445	332	310
Sub-total, ethane	5 687	5 511	5 157	6 453	544	448	333	310
Pentane¹								
Manitoba	—	—	1	—	—	—	—	—
Saskatchewan	30	29	29	33	6	6	3	4
Alberta	5 333	5 643	5 718	6 061	1,123	1,225	709	873
British Columbia	131	119	141	188	27	27	15	27
Yukon and Northwest Territories	...	32	49	30	...	6	3	3
Sub-total, pentane ¹	5 494	5 823	5 938	6 312	1,156	1,264	730	907

11.9 Natural gas liquids production and value (concluded)

Item	Gas plant production ('000 m ³)				Value (\$'000,000)			
	1984	1985	1986 [†]	1987	1984	1985	1986 [†]	1987
Total	—	—	5	3	—	—	—	—
Manitoba	212	206	204	214	28	26	18	18
Saskatchewan	19 156	19 207	18 403	20 752	2,777	2,741	1,705	1,809
Alberta	273	264	465	561	44	43	37	46
British Columbia	—	32	49	30	—	6	3	3
Yukon and Northwest Territories	—	—	—	—	—	—	—	—
Total	19 641	19 709	19 126	21 560	2,849	2,816	1,763	1,876

[†] A product of gas plants which is combined with crude oil.

11.10 Natural gas liquids¹, supply and demand (thousand cubic metres)

Item	1984	1985	1986 [†]	1987
Supply				
Gas plant production	14 147	13 886	13 189	15 249
Imports	2	—	8	221
Interproduct transfers				
LPGs ² to refineries for blending	-1 543	-1 789	-1 425	-2 411
LPGs ² received from refineries ³	2 217	2 227	2 196	2 487
Sub-total, interproduct transfers	674	438	771	76
Total, supply	14 823 [†]	14 324	13 968	15 546
Demand				
Domestic energy use	2 952	3 319	3 126	3 355
Non-energy use ⁴	3 565	4 565	5 106	6 644
Exports	7 661	6 473	4 482	4 776
Total, demand	14 178	14 357	12 714	14 775
Inventory change and other adjustments	645 [†]	-33	1 254	771

¹ Includes propane, butane and ethane.

² LPG (liquefied petroleum gas).

³ Petroleum refinery produced LPG (propane and butane) for domestic sale or export.

⁴ Excludes any LPG which becomes part of the petrochemical feedstock in petroleum refineries.

11.11 Coal production and value, by type and province

Type and province	Production ('000 t)				Value (\$ '000,000)			
	1984	1985 [†]	1986 [†]	1987	1984	1985 [†]	1986 [†]	1987
Bituminous								
Nova Scotia	3 093	2 810	2 955	2 930	162	168	178	179
New Brunswick	564	557	485	533	30	32	28	33
Alberta	7 630	7 655	7 619	7 202	322	299	291	247
British Columbia	20 775	22 667	21 141	21 991	1,017	1,090	974	948
Sub-total, bituminous	32 062	33 689	32 200	32 656	1,531 [†]	1,589	1,471	1,407
Sub-bituminous								
Alberta	15 422	17 075	17 331	18 536	137	148	155	165
Lignite								
Saskatchewan	9 917	9 672	8 280	10 020	127	108	101	92
Total	57 401	60 436	57 811	61 212	1,795 [†]	1,845	1,727	1,664

11.12 Coal, supply and demand (thousand tonnes)

Item	1984	1985	1986 ^f	1987
Supply				
Production	57 401	60 854	57 048	61 206
Imports	18 376	14 579	13 311	14 335
Total, supply	75 777	75 433	70 359	75 541
Demand				
Domestic demand				
Electric generation	40 270	39 470	36 466	41 883
Coke plants	6 678	6 334	6 142	6 309
Steam generation	206	96	36	33
Industrial	1 615	1 676	1 640	1 735
Residential	152	182	185	174
Public administration	10	7	5	1
Commercial and institutional	42	36	32	26
Non-energy use	20	151	223	168
Sub-total, domestic demand	48 993	47 952	44 729	50 329
Exports	25 138	27 378	25 904	26 740
Total, demand	74 131	75 330	70 633	77 069
Inventory change and other adjustments	1 646	103	-274	-1 528

11.13 Electricity generated and consumed¹, by province (thousand megawatt hours)

Province or territory	Generation				Domestic demand			
	1984	1985	1986 ^f	1987	1984	1985	1986 ^f	1987
Newfoundland	45 648	41 494	40 530	40 253	8 532	8 633	9 047	9 113
Prince Edward Island	2	2	12	58	494	522	533	579
Nova Scotia	7 236	7 457	7 410	7 751	6 671 ^f	7 034 ^f	7 276	7 672
New Brunswick	12 396	11 401	12 222	12 633	9 361	9 385	10 438	10 968
Quebec	122 179	137 028	148 926	157 561	123 722 ^f	132 603 ^f	139 568	145 986
Ontario	120 606	121 783	125 267	131 843	110 427 ^f	112 895 ^f	117 715	123 559
Manitoba	21 489	22 777	24 059	19 912	12 806	13 514	13 945	13 706
Saskatchewan	11 543	11 838	11 900	12 460	10 366 ^f	10 465 ^f	10 433	11 096
Alberta	31 160	33 432	34 857	36 952	28 968	30 929	31 916	33 670
British Columbia	52 379	59 124	50 861	63 244	42 380 ^f	44 350 ^f	45 219	46 455
Yukon and Northwest Territories	778	846	963	974	702	774	874	889
Total	425 416	447 182	457 007	483 641	354 429^f	371 104^f	386 964	403 693

¹ Net generation.**11.14 Electricity supply and demand (thousand megawatt hours)**

Item	1984 ^f	1985 ^f	1986 ^f	1987
Supply				
Production ¹				
Hydro	283 531	301 289	308 572	314 054
Nuclear	49 253	57 066	67 233	72 888
Thermal	92 631	88 827	81 201	96 698
Sub-total, production	425 415	447 182	457 006	483 640
Imports	2 343	3 093	4 957	3 452
Total, supply	427 758	450 275	461 963	487 092

11.14 Electricity supply and demand (thousand megawatt hours) (concluded)

Item	1984 ^f	1985 ^f	1986 ^f	1987
Demand				
Domestic demand				
Manufacturing	137 212	145 068	150 495	161 360
Other industrial	22 976	23 603	25 054	23 831
Transportation	2 584	2 692	2 799	2 967
Agriculture	7 207	7 516	7 705	7 708
Residential	101 026	106 467	110 292	111 605
Public administration	8 402	9 959	11 980	12 267
Commercial and institutional	75 021	75 801	78 640	83 654
Sub-total, domestic demand	354 428	371 106	386 965	403 392
Exports	41 436	43 516	38 934	47 426
Total, demand	395 864	414 622	425 899	450 818
Own use, transmission losses and other adjustments	31 894	35 653	36 064	36 274

^f Net generation.**11.15 Fuels used to generate thermal electricity¹, by province**

Province or territory	Year	Coal '000 t	Natural gas '000 000 m ³	Petroleum products '000 m ³	Uranium tonnes	Other ² MJ
Newfoundland	1984	—	—	259	—	—
	1985	—	—	492	—	—
	1986	—	—	364	—	—
	1987	—	—	647	—	—
Prince Edward Island	1984	—	—	7	—	—
	1985	—	—	7	—	—
	1986	—	—	9	—	—
	1987	—	—	25	—	—
Nova Scotia	1984	1 972	—	250	—	570 ^f
	1985	2 147	—	197	—	824 ^f
	1986	2 137	—	192	—	778
	1987	2 077	—	378	—	824
New Brunswick	1984	610	—	618	108	1 670 ^f
	1985	521	—	597	112	1 060 ^f
	1986	469	—	578	106	1 405
	1987	526	—	876	99	2 321
Quebec	1984	—	—	65	67	—
	1985	—	1 ^f	63	66	69 ^f
	1986	—	—	63	73	12
	1987	—	3	75	87	81
Ontario	1984	13 478	391	62	765	810 ^f
	1985	11 068	342	37	908	1 025 ^f
	1986	9 246	363	24	1 048	684
	1987	12 070	214	147	1 114	1 229
Manitoba	1984	163	2 ^f	22	—	179 ^f
	1985	253	1	25	—	196 ^f
	1986	111	1	22	—	351
	1987	461	4	15	—	156
Saskatchewan	1984	7 925	166	27	—	881 ^f
	1985	8 290	143	18	—	893 ^f
	1986	6 786	54	7	—	806
	1987	7 672	70	14	—	628
Alberta	1984	16 122	1 112 ^f	15	—	5 063 ^f
	1985	17 192	907	7	—	—
	1986	17 719	1 067	31	—	1 221
	1987	19 077	1 062	7	—	2 782
British Columbia	1984	—	108	120	—	3 865 ^f
	1985	—	80	124	—	5 069 ^f
	1986	—	84	88	—	5 230
	1987	—	98	85	—	5 990

11.15 Fuels used to generate thermal electricity¹, by province (concluded)

Province or territory	Year	Coal '000 t	Natural gas ² '000 000 m ³	Petroleum products ² '000 m ³	Uranium tonnes	Other ² MJ
Yukon and Northwest Territories	1984	—	—	77	—	—
	1985	—	9 ^r	78	—	—
	1986	—	9	73	—	—
	1987	—	9	59	—	—
Canada	1984	40 270	1 779 ^r	1 522	940	13 038 ^r
	1985	39 471	1 483 ^r	1 645	1 086	9 136 ^r
	1986	36 468	1 578	1 451	1 227	10 487
	1987	41 883	1 460	2 328	1 300	14 011

¹ For utilities, industrial and other producers of thermal electricity.² Includes some petroleum products (tar, coke), manufactured gases, wood, spent pulping liquor and other miscellaneous fuels measured in estimated megajoules.

11.16 Electric energy generation by method and province (thousand megawatt hours)

Province or territory	Year	Thermal generation					Hydro	Nuclear	Total
		Coal	Natural gas	Petroleum	Other	Total			
Newfoundland	1984	—	—	876	—	876	44 773	—	45 649
	1985	—	—	1 847	—	1 847	39 647 ^r	—	41 494 ^r
	1986	—	—	1 376	—	1 376	39 155	—	40 531
	1987	—	—	2 443	—	2 443	37 810	—	40 253
Prince Edward Island	1984	—	—	2	—	2	—	—	2
	1985	—	—	2	—	2	—	—	2
	1986	—	—	12	—	12	—	—	12
	1987	—	—	58	—	58	—	—	58
Nova Scotia	1984	4 866	—	1 228	99	6 193	1 043	—	7 236
	1985	5 540	—	860 ^r	143 ^r	6 543	914	—	7 457
	1986	5 404	—	833	135	6 372	1 040	—	7 412
	1987	5 231	—	1 589	143	6 963	788	—	7 751
New Brunswick	1984	1 374	—	2 178	290	3 842	3 327 ^r	5 227 ^r	12 396
	1985	1 054	—	2 447	184	3 685	2 292 ^r	5 424 ^r	11 401
	1986	945	—	2 619	244	3 808	2 815	5 597	12 220
	1987	1 384	—	3 495	403	5 282	2 240	5 112	12 634
Quebec	1984	—	—	148	—	148	118 608	3 423	122 179
	1985	—	—	140	12	152	133 696	3 180	137 028
	1986	—	—	170	2	172	144 667	4 087	148 926
	1987	—	20	181	14	215	152 686	4 660	157 561
Ontario	1984	37 313	1 351	162	134	38 960	40 828 ^r	40 819	120 607 ^r
	1985	30 320	1 381	118	131	31 950	41 376	48 459	121 785
	1986	24 397	1 473	68	91	26 029	34 266	64 972	125 267
	1987	31 616	1 587	530	207	33 940	34 786	63 116	131 842
Manitoba	1984	150	9	71 ^r	31	261 ^r	21 226	—	21 487 ^r
	1985	242	8	83	34	367	22 410	—	22 777
	1986	95	8	54	61	218	23 840	—	24 058
	1987	503	14	56	27	600	19 312	—	19 912
Saskatchewan	1984	9 088	495	105	153	9 841	1 705	—	11 546
	1985	9 369	335	38	155	9 897	1 941	—	11 838
	1986	7 733	244	20	140	8 137	3 767	—	11 904
	1987	8 807	281	75	109	9 272	3 189	—	12 461
Alberta	1984	25 549	3 216	89	879	29 733	1 427	—	31 160
	1985	27 786	3 803	32	400	32 021	1 411	—	33 432
	1986	28 362	4 082	160	437	33 041	1 816	—	34 857
	1987	31 317	3 672	30	483	35 502	1 450	—	36 952
British Columbia	1984	—	740	718	671	2 129	50 250	—	52 379
	1985	—	581	611	880	2 072	57 052	—	59 124
	1986	—	567	450	908	1 925	48 935	—	50 860
	1987	—	671	447	1 040	2 158	61 087	—	63 245
Yukon and Northwest Territories	1984	—	—	229	—	229	549	—	778
	1985	—	—	293	—	293	553	—	846
	1986	—	67	227	—	294	669	—	963
	1987	—	67	200	—	267	707	—	974
Canada	1984	78 340	5 811	5 806 ^r	2 257	92 214 ^r	283 736 ^r	49 469 ^r	425 419 ^r
	1985	74 311	6 108	6 471 ^r	1 939 ^r	88 829	301 292 ^r	57 063 ^r	447 184 ^r
	1986	66 936	6 441	5 989	2 018	81 384	300 970	74 656	457 010
	1987	78 858	6 312	9 104	2 426	96 700	314 055	72 888	483 643

11.17 Wells drilled, by type and region¹

Region	Oil				Gas			
	1984	1985	1986 ^T	1987	1984	1985	1986 ^T	1987
Eastern Canada								
Offshore East Coast	4	5	4	3	5	6	5	—
Atlantic provinces	—	—	—	—	—	6 ^r	—	—
Quebec	—	—	—	—	—	—	—	—
Ontario	28	24	20	16	56	61	34	17
Sub-total, Eastern Canada	32	29	24	19	61	73 ^T	39	17
Western Canada								
Manitoba	216	227	126	89	—	—	—	—
Saskatchewan	2,120	2,794	667	819	435	443	222	546
Alberta	3,189	3,945	2,059	2,699	1,397	2,022	1,029	996
British Columbia	106	95	55	31	31	57	43	57
Yukon and Northwest Territories	41	31	16	20	3	6	4	—
Sub-total, Western Canada	5,672	7,092	2,923	3,658	1,866	2,528	1,298	1,599
Total, Canada	5,704	7,121	2,947	3,677	1,927	2,601 ^T	1,337	1,616
	Dry				Total			
	1984	1985	1986 ^T	1987	1984	1985	1986	1987
Eastern Canada								
Offshore East Coast	13	16	7	5	22	27	16	8
Atlantic provinces	3	1	1	—	3	7 ^r	1	—
Quebec	1	5 ^r	—	8	1	5 ^r	—	8
Ontario	84	79	34	28	168	164	88 ^T	61
Sub-total, Eastern Canada	101	101 ^T	42	41	194	203 ^T	105 ^T	77
Western Canada								
Manitoba	30	38	11	20	246	265	137	109
Saskatchewan	361	510	170	174	2,916	3,747	1,059	1,539
Alberta	1,337	1,702	1,174	1,326	5,923	7,669	4,262 ^T	5,021
British Columbia	52	72	53	47	189	224	151 ^T	135
Yukon and Northwest Territories	21	26	29	4	65	63	49	24
Sub-total, Western Canada	1,801	2,348	1,437	1,571	9,339	11,968	5,658 ^T	6,828
Total, Canada	1,902	2,449 ^T	1,479	1,612	9,533	12,171 ^T	5,763 ^T	6,905

¹ Does not include suspended or service and miscellaneous wells.**11.18 Natural gas and oil pipeline distances in Canada (kilometres)**

Item and province or territory	1984	1985	1986	1987
Natural gas				
Gathering and transmission systems				
New Brunswick	42	42	42	42
Quebec	1 105	1 145	1 102	1 105
Ontario	12 800	13 131	13 297	13 243
Manitoba	2 982	2 990	2 995	2 990
Saskatchewan	15 905	15 643	14 839	15 183
Alberta	44 843	45 859	47 182	51 667
British Columbia	8 933	9 167	9 366	9 619
Yukon and Northwest Territories	55	55	91	97
Total	86 665	88 032	88 914	93 946
Distribution systems				
New Brunswick	146	146	146	146
Quebec	4 359	4 669	5 715	5 656
Ontario	36 638	37 699	38 999	41 224
Manitoba	3 246	4 340	4 427	4 496
Saskatchewan	19 135	27 598	38 413	44 732
Alberta ¹	36 753	37 413	40 196	40 681
British Columbia	13 148	13 533	14 316	15 300
Total	113 425	125 398	142 212	152 235

11.18 Natural gas and oil pipeline distances in Canada (kilometres) (concluded)

Item and province or territory	1984	1985	1986	1987
Crude oil and products ²				
Quebec	588	594	594	594
Ontario	3 658	3 593	3 597	3 464
Manitoba	1 932	2 157	2 194	2 755
Saskatchewan	8 732	8 078	8 881	11 055
Alberta	21 946	24 526	24 835	26 569
British Columbia	2 455	2 484	2 434	2 514
Yukon and Northwest Territories	89	841	901	911
Total	39 400	42 273	43 436	47 862

¹ Excludes Alberta Co-ops.² Includes various refined petroleum products as well as natural gas liquids.**11.19 Oil refining, by province**

Year and province or territory	No.	Capacity '000 m ³ /yr	% of total
1984			
Newfoundland ¹	—	—	—
Nova Scotia	2	5 906	5.5
New Brunswick	1	9 855 ¹	9.1
Quebec	4	22 104	20.4
Ontario	7	37 632 ¹	34.8
Saskatchewan	2	2 858	2.6
Alberta	7	19 896	18.4
British Columbia	6	9 683	9.0
Northwest Territories	1	168	0.2
Total	30	108 102 ¹	100.0
1985			
Newfoundland ¹	—	—	—
Nova Scotia	2	5 906	5.3
New Brunswick	1	9 855 ¹	8.9
Quebec	4	22 276	20.1
Ontario	7	36 766 ¹	33.1
Saskatchewan	2	3 121 ¹	2.8
Alberta	7 ¹	23 143	20.9
British Columbia	6	9 683	8.7
Northwest Territories	1	168	0.2
Total	30 ¹	110 918 ¹	100.0
1986			
Newfoundland ¹	—	—	—
Nova Scotia	2	5 906	5.5
New Brunswick	1	9 855	9.2
Quebec	3	17 980	16.9
Ontario	7	36 766	34.5
Saskatchewan	2	3 121	2.9
Alberta	7	23 143	21.7
British Columbia	6	9 683	9.1
Northwest Territories	1	168	0.2
Total	29	106 622	100.0
1987			
Newfoundland	1	4 052	3.7
Nova Scotia	2	5 906	5.3
New Brunswick	1	9 855	8.9
Quebec	3	17 980	16.2
Ontario	7	36 766	33.2
Saskatchewan	2	3 121	2.8
Alberta	7	23 143	20.9
British Columbia	6	9 683	8.7
Northwest Territories	1	168	0.2
Total	30	110 674	100.0

¹ Refinery closed.

11.20 Installed generating capacity¹ (megawatts)

Province or territory	Year	Conventional steam	Gas turbine	Internal combustion	Hydro	Nuclear	Total
Newfoundland	1984	505	170	81	6 213	—	6 969
	1985	505	170	82	6 560 ^f	—	7 317 ^f
	1986	505	170	83	6 644	—	7 402
	1987	505	170	83	6 644	—	7 402
Prince Edward Island	1984	71	41	11	—	—	123
	1985	71	41	11	—	—	123
	1986	71	41	11	—	—	123
	1987	71	41	11	—	—	123
Nova Scotia	1984	1 783	205	1	366	—	2 355
	1985	1 783	205	1	384 ^f	—	2 373 ^f
	1986	1 754	205	1	386	—	2 346
	1987	1 754	205	1	386	—	2 346
New Brunswick	1984	1 867	23	5	903	680	3 478
	1985	1 868	23	5	903	680	3 479
	1986	1 869	23	16	903	680	3 491
	1987	1 868	23	16	903	680	3 490
Quebec	1984	638	363	109	24 878	951	26 939
	1985	638	363	110	24 929	951	26 991
	1986	638	363	109	25 849	951	27 910
	1987	638	363	100	26 016	685	27 802
Ontario	1984	12 900	728	10	7 130	8 182	28 950
	1985	13 101 ^f	618	10	7 172	8 182	29 083 ^f
	1986	13 162	624	10	7 764	9 733	31 293
	1987	13 183	576	10	7 768	11 163	32 700
Manitoba	1984	446	24	30	3 641	—	4 141
	1985	446	24	31	3 641	—	4 142
	1986	446	24	26	3 641	—	4 137
	1987	446	24	14	3 641	—	4 125
Saskatchewan	1984	1 922	155	6	576	—	2 659
	1985	1 957 ^f	155	7 ^f	576	—	2 695 ^f
	1986	1 957	155	7	831	—	2 950
	1987	1 852	155	7	833	—	2 847
Alberta	1984	5 916	524	46	734	—	7 220
	1985	6 299 ^f	524	46 ^f	734	—	7 603 ^f
	1986	6 298	524	48	734	—	7 604
	1987	6 297	524	45	734	—	7 600
British Columbia	1984	1 414	154	96	10 379	—	12 043
	1985	1 352 ^f	154	94	10 852 ^f	—	12 452 ^f
	1986	1 411	154	95	10 848	—	12 508
	1987	1 410	151	96	10 751	—	12 408
Yukon and Northwest Territories	1984	—	20 ^f	183	131	—	334 ^f
	1985	—	20 ^f	182	131	—	333 ^f
	1986	—	20	161	132	—	313
	1987	—	20	160	137	—	317
Confidential	1984	35	—	1	—	—	36
	1985	35	—	1	—	—	36
	1986	—	—	—	—	—	—
	1987	—	—	—	—	—	—
Canada	1984	27 497	2 407 ^f	579	54 951	9 813	95 247 ^f
	1985 ^f	28 055	2 297	580	55 882	9 813	96 627
	1986	28 111	2 303	567	57 732	11 364	100 077
	1987	28 024	2 252	543	57 813	12 528	101 160
Net additions	1984	129	-136	-15	3 676	2 042	5 696
	1985	558 ^f	-110	1 ^f	931 ^f	—	1 380 ^f
	1986	56	6	-13	1 850	1 551	3 450
	1987	-87	-51	-24	81	1 164	1 083
1984 % increase over 1983	1983	0.5	-5.4	-2.5	7.2	26.3	6.4
1985 % increase over 1984	1984	2.0	-4.6	0.2	1.7	—	1.4
1986 % increase over 1985	1985	0.2	0.3	-2.2	3.3	15.8	3.6
1987 % increase over 1986	1986	-0.3	-2.2	-4.2	0.1	10.2	1.1

¹ Name plate rating; rating of generator under specified conditions as designed by the manufacturer.

11.21 Established reserves of crude oil and equivalent and marketable natural gas

Province or territory	Year	Crude oil and equivalent		Pentanes plus		Marketable natural gas	
		Year-to-year '000 m ³	% change	Year-to-year '000 m ³	% change	Year-to-year '000 000 m ³	% change
Atlantic provinces ¹	1984	104 000	..	...	...	130	..
	1985	84 000	-23.8	...	...	154	15.6
	1986	84 000	—	...	...	141	-9.2
	1987	84 000	—	...	...	125	-12.8
Ontario	1984	963	..	...	...	12 698	..
	1985	1 006	4.3	...	...	11 310	-12.3
	1986	904	-11.3	...	...	17 444	35.2
	1987	794	-13.9	...	...	17 949	2.8
Manitoba	1984	9 938	..	7	..	..	..
	1985	10 479	5.2	33	78.8	..	..
	1986	10 522	0.4	33	—	..	..
	1987	10 485	-0.4	30	-10.0	..	..
Saskatchewan	1984	115 458	..	267	..	26 962	..
	1985	122 937	6.1	252	-6.0	25 801	-4.5
	1986	106 296	-15.7	240	-5.0	61 305	57.9
	1987	106 146	-0.1	572	58.0	60 705	-1.0
Alberta	1984	666 359	..	96 552	..	1 898 815	..
	1985	648 726	-2.7	129 187	25.3	1 827 058	-3.9
	1986	632 743	-2.5	115 405	-11.9	1 749 997	-4.4
	1987	631 315	-0.2	115 056	-0.3	1 727 725	-1.3
British Columbia	1984	22 983	..	3 114	..	223 996	..
	1985	20 359	-12.9	4 448	30.0	243 548	8.0
	1986	18 500	-10.0	4 399	-1.1	240 307	-1.3
	1987	17 013	-8.7	3 891	-13.1	210 327	-14.3
Yukon and Northwest Territories ²	1984	30 320	..	17 508	..	645 980	..
	1985	29 321	-3.4	18 018	2.8	676 052	4.4
	1986	92 444	68.3	19 890	9.4	676 316	—
	1987	91 407	-1.1	18 575	-7.1	675 952	-0.1
Canada	1984	950 021	..	117 448	..	2 808 581	..
	1985	916 828	-3.6	151 938	22.7	2 783 923	-0.9
	1986	945 409	3.0	139 967	-8.6	2 745 510	-1.4
	1987	941 160	-0.5	138 124	-1.3	2 692 783	-2.0

¹ Includes the East Coast offshore.² Includes the Arctic Islands.**11.22 Capital expenditures in energy-related industries (million dollars)**

Item	1984	1985 ^T	1986 ¹	1987 ²
Industries related to petroleum and natural gas				
Conventional crude oil and natural gas	6,452	7,122	4,855	3,808
Non-conventional crude oil	495	1,065	546	523
Refined petroleum and coal products	432	336	398	660
Natural gas processing plants	340	337	208	161
Transportation	795	664	587	529
Natural gas distribution	604	603	574	534
Marketing	423	356	345	426
Oil and gas drilling contractors	44	80	30	14
Sub-total	9,585	10,563	7,543	6,655
Electric power systems				
Coal mines	6,340	5,728	5,618	6,233
Uranium	832	471	429	355
	186	159	144	106
Total	16,943	16,921	13,734	13,349

¹ Preliminary actual expenditures.² Intentions.**Source**

11.1 - 11.22 Energy Section, Industry Division, Statistics Canada.

CHAPTER 12

SCIENCE AND TECHNOLOGY

CHAPTER 12

SCIENCE AND TECHNOLOGY

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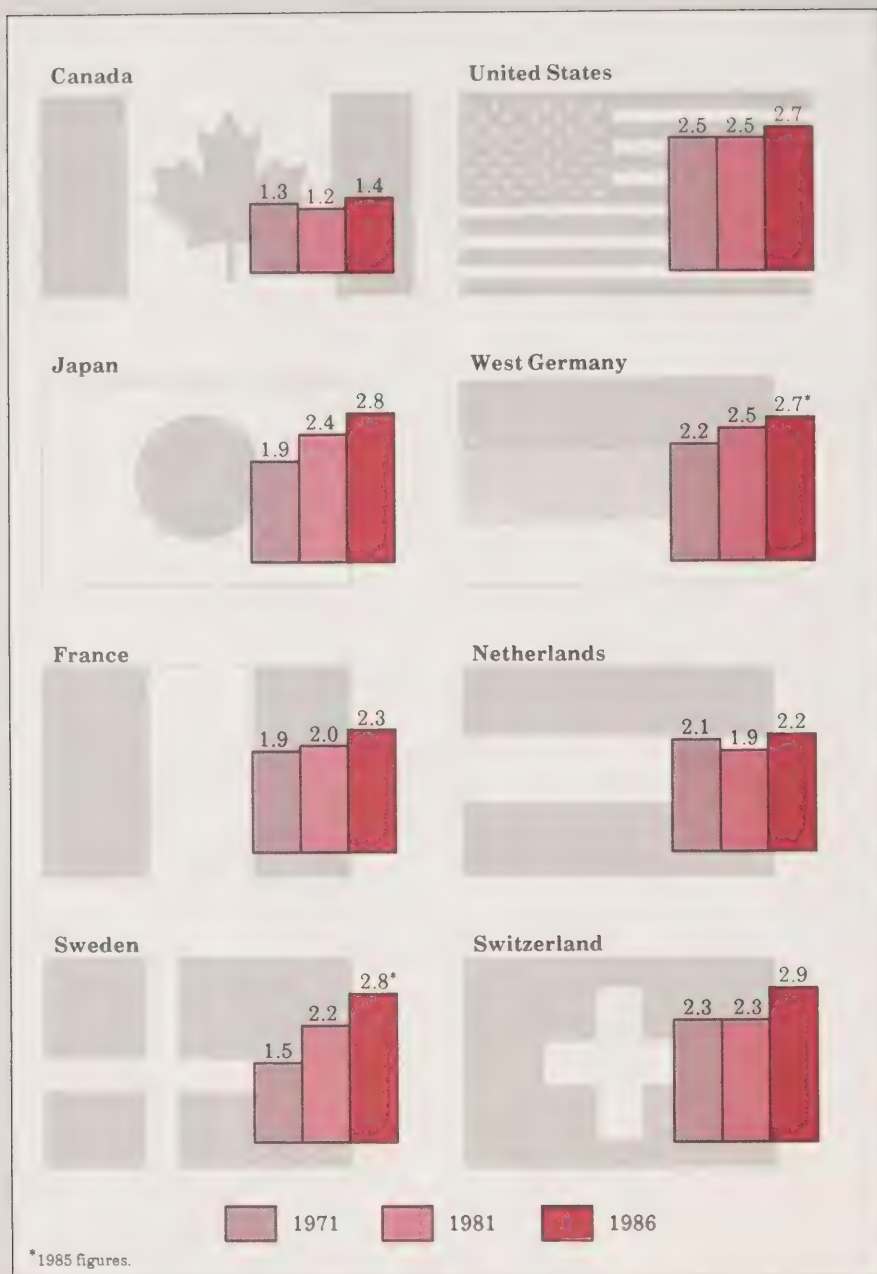
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GROSS EXPENDITURE ON R&D AS A PERCENTAGE OF GROSS DOMESTIC PRODUCT

Selected OECD countries

In 1986, Switzerland ranked first among selected OECD countries, with the highest percentage (2.9%) of their Gross Domestic Product (GDP) spent on R&D. Expenditures on R&D are an important indicator of the effort a country devotes to developing new products and processes in science and technology.

CHAPTER 12

SCIENCE AND TECHNOLOGY

Science and technology (S&T) is a term used to encompass activities which involve the generation, dissemination and initial application of new scientific knowledge and technology. In Canada S&T is used to foster the development of natural resources, to aid industry, and to stimulate economic growth both nationally and regionally. The federal and provincial governments, industry and universities fund and perform S&T.

Science and technological activities are undertaken in the natural sciences and engineering (NSE) and in the social sciences and humanities (SSH). In both of these fields of science two types of scientific endeavour are undertaken: research and development (R&D) which is creative work undertaken on a systematic basis to increase the stock of knowledge; and related scientific activities (RSA) which are activities that complement and extend R&D by contributing to the generation, dissemination and application of scientific and technological knowledge.

In this chapter the primary focus is on the federal resources devoted to S&T including federal support to industrial development, basic research and the development of highly skilled people through the university sector. More funds were spent in the National Capital Region (37%), than elsewhere. Ontario is the second largest recipient of federal science funds (20%) and Quebec is the third (15%). The western provinces received 19% and the Atlantic provinces, 8%.

12.1 Federal resources for science and technology

Total expenditures for S&T were estimated at about \$4.4 billion in 1988-89, an increase of almost 6% over 1987-88. This represents 3.3% of the government's total spending estimates. Over 60 federal departments and agencies spend funds for S&T to support departmental missions and to aid industrial development through both in-house (intramural) activities and by funding S&T to be performed by the private sector (extramural). Basic research in the university sector is funded by the

government primarily through three granting councils: the Natural Sciences and Engineering Research Council, the Medical Research Council and the Social Sciences and Humanities Research Council.

Approximately 33,000 persons were engaged in performing the government's S&T activities in 1988-89, slightly lower than the previous year. The largest employers were Agriculture Canada, Statistics Canada, Environment Canada and the National Research Council.

12.1.1 Natural sciences and engineering

In the natural sciences such as biology, chemistry, physics, astronomy and geology and in engineering, estimated expenditures were \$3.6 billion in 1988-89, with \$2.6 billion (72%) for R&D and \$1.0 billion (28%) for RSA. Most of the RSA expenditures (\$319 million) were for data collection in a wide range of activities, from the monitoring of acid rain for environmental protection to wildlife surveys.

About 48% of R&D expenditures were for intramural activities, 23% for R&D performed by industry and 21% for R&D performed by the university sector. The remaining expenditures were for R&D by private non-profit organizations, provincial and municipal governments, the foreign sector and other Canadian performers.

Since 1983-84 total expenditures in natural sciences and engineering have increased by 27%; R&D increased by 22% and RSA increased by 39%.

Human resources for R&D in the natural sciences and engineering totalled 14,920 person-years and for RSA, 9,290 in 1988-89.

Further details of the five largest participants are provided in section 12.2.

12.1.2 Social sciences and humanities

The social sciences and humanities embrace all disciplines involved in studying human actions and conditions and the social, economic and institutional mechanisms affecting humans. Estimated 1988-89 expenditures in this field of

science were \$844 million with 81% for RSA and 19% for R&D.

The bulk of the RSA expenditures was for data collection, dominated by the statistical activities of Statistics Canada. About 88% of the expenditures on RSA are performed intramurally. In R&D, 40% of the expenditures are intramural with 33% being spent in the university sector, primarily as a result of the activities of the Social Sciences and Humanities Research Council.

Human resources devoted to S&T in 1988-89 were 8,210 person-years for RSA and 610 for R&D.

Further details for the five largest participants are provided in section 12.3.

12.2 Major participants in natural sciences and engineering

Five federal departments and agencies fund 57% of the total activities in natural sciences and engineering. The scientific and technological endeavours of these departments and agencies cover a broad range of activities including in-house facilities for industry research, support for industrial development, support for basic research and training of scientific personnel, and performing of research in support of departmental missions.

12.2.1 National Research Council

Created in 1917, the National Research Council (NRC) has an objective to create, acquire and promote the application of scientific and engineering knowledge to meet Canadian needs for economic, regional and social development. With estimated expenditures of \$480 million in 1988-89, it is the largest federal spender on S&T activities. The total overall growth of NRC expenditures has been about 17% since 1983-84. NRC expects to spend about 68% of its 1988-89 budget intramurally, 23% in the industrial sector, 6% in the university sector and the balance among other performers.

NRC covers a wide range of scientific and technological activities in the following six areas: national competence in the natural sciences and engineering; research on problems of economic and social importance; research in direct support of industrial innovation and development; national facilities; research and services related to physical standards; and scientific and technical information. The research laboratories are contained in the divisions of biological sciences, chemistry, electrical engineering, energy, mechanical engineering and physics, and in the Herzberg Institute of Astrophysics and the National Aeronautical Establishment.

NRC also operates a series of regional laboratories:

—The Institute for Marine Dynamics at St. John's, Nfld.,

—The Atlantic Research Laboratory at Halifax, NS,

—The Industrial Materials Research Institute in Boucherville, Que.,

—The Plant Biotechnology Institute in Saskatoon, Sask.,

—The Western Laboratory in Vancouver, BC,

—The Biotechnology Research Institute in Montreal, Que.

In addition to its laboratory facilities which are used to perform research in support of NRC's mission, and under contract to the private sector, NRC operates the Industry Development Office. This Office was expected to provide an estimated \$65 million in 1988-89 in grants and contributions to industry through two industrial support programs: an industrial research assistance program (IRAP) and a program of industry/laboratory projects (PILP).

IRAP provides a wide range of support by paying salaries for researchers for specific projects in small- and medium-sized businesses, and by providing technical advice to firms. These services are delivered to industry by a series of regional offices across the country, some of them operated under contract by the provincial research organizations (see section 12.4). PILP is designed to assist companies in technology transfer from both government and university laboratories.

Under the scientific and technical information program, NRC operates the Canada Institute for Scientific and Technical Information (CISTI).

12.2.2 Agriculture Canada

The federal department of agriculture (Agriculture Canada) with estimated spending of \$412 million is the second largest spender in natural sciences and engineering. The bulk of Agriculture Canada expenditures, 90%, was planned for R&D with 94% being performed intramurally. Only 4% of the department's expenditures were in the industry sector and 2% in the university and other sectors.

The bulk of the department's S&T activities is in the Research Branch which operates 52 research units across Canada. These specialize in local problems. In addition, Agriculture Canada operates six national research centres: the Animal Research Centre, the Biosystematics Research Centre, the Plant Research Centre, the Food Research Centre, the Land Resource Research Centre, and the Engineering and Statistical Research Centre.

S&T activities include research on soil properties; water use and water management; energy utilization; environmental quality research; research on production development including animal crossbreeding, feed lot systems and genetics; research relating to processing distribution, retailing and consumer concerns; and forestry research.

12.2.3 Energy, Mines and Resources Canada

The federal department of energy, mines and resources (EMR Canada) planned to spend about \$397 million on its S&T activities in 1988-89, 71% intramurally and 14% in the industrial sector. EMR operates several laboratories across Canada including the Atlantic Geoscience Centre in Nova Scotia and the Pacific Geoscience Centre in British Columbia; the Canada Centre for Mineral and Energy Technology (CANMET), the Canada Centre for Remote Sensing and the Earth Physics Branch in Ottawa; the Institute for Sedimentary and Petroleum Geology in Calgary; the Cordilleran Geology Division in Vancouver; and coal research laboratories in Edmonton and Calgary, Alta. and Sydney, NS.

The department is responsible for geological surveys and the mapping of the Canadian landmass. The department also develops R&D policies to support national energy options, management and technical evaluation of the government's energy R&D program. See also Chapter 10, Mines and minerals.

12.2.4 Environment Canada

The federal department of the environment (Environment Canada) is fourth of the major spenders with estimated spending of \$388 million for S&T in the natural sciences and engineering. About 94% is being spent in its own laboratories with about one-fifth on R&D and four-fifths on RSA, primarily for data collection.

Environment Canada's activities occur in its four services: atmospheric environment, environmental conservation, environmental protection and Parks Canada. Environment Canada operates a series of laboratories across the country to cope with both regional and national environmental concerns. The inland waters directorate and the National Water Research Institute are in Burlington, Ont. and the National Hydrology Institute is in Saskatoon, Sask.

The atmospheric environment service was responsible for about 66% of the department's S&T expenditures. It provides historical, current and predictive meteorological, sea-state and ice information for all areas of Canada and

contiguous waters. The service provides assessments of human activities in the atmospheric environment and conducts research on the behaviour of the atmosphere, wind-wave mechanisms and the dynamics of ice.

About 30% of Environment Canada's funding for S&T was budgeted for environmental conservation which includes water resources development; water quantity and quality research; hydrometric data collection; and the development of inventories of land capability and use.

12.2.5 Natural Sciences and Engineering Research Council

The Natural Sciences and Engineering Research Council (NSERC) is the largest of the two university granting councils in natural sciences and engineering with planned expenditures of about \$356 million in 1988-89. The second council is the Medical Research Council with expenditures of \$183 million. About 92% of NSERC's budget goes to Canadian universities and 2% to foreign performers with the bulk of the balance devoted to administration. Two activities account for 85% of the Council's program: grants to individuals and groups for expenses in support of research activities (research grants); and grants for advanced study and professional development in universities.

12.3 Major participants in social sciences and humanities

Five federal departments and agencies fund 65% of the total expenditures in the social sciences and humanities. The scientific and technological endeavours cover a wide range of activities including collection and dissemination of information, funding of basic research in universities and research on Third World social problems.

12.3.1 Statistics Canada

With estimated 1988-89 expenditures of about \$282 million, Statistics Canada is by far the largest spender on social sciences and humanities (double that of the second largest spender). As the statistical agency of the federal government, Statistics Canada collects and provides statistical information needed for understanding the Canadian economy and Canadian institutions and for the development of economic and social policies and programs.

Three major technical fields in which the agency provides information are: national accounts; business and trade; and institutions and labour. For additional information, see Tables 12.2 and 12.6.

12.3.2 National Museums of Canada

National Museums planned to spend an estimated \$107 million on social sciences and humanities in 1988-89 to demonstrate the products of nature and the works of man. The bulk of this expenditure was slated for museum services but about 10% was to be spent on R&D in the social sciences and humanities. Expenditures on social sciences and humanities were set at 76% of the total budget with the balance to be spent on natural sciences and engineering activities. The corporation operates the National Gallery of Canada, the Canadian Museum of Civilization, the National Museum of Natural Sciences, and the National Museum of Science and Technology.

This Crown corporation operates a museum assistance program providing funds to non-profit organizations to develop museum services.

12.3.3 Social Sciences and Humanities Research Council

The estimated 1988-89 expenditures of the Social Sciences and Humanities Research Council (SSHRC) were \$73 million with 65% to be spent on R&D in social sciences and humanities. Canadian universities receive about 75% of the Council's budget.

The Council objectives are: to encourage excellence in research; to enhance the advancement of knowledge by assisting independent research; to promote research which contributes to the fulfilment of national objectives; to encourage the diffusion of scholarly works; and to assist in the training of researchers. Grants are awarded to career scholars and for the international exchanges of scholars. Grants are also provided to learned societies to support scholarly publications and major editorial projects.

12.3.4 National Library of Canada

The National Library of Canada estimated 1988-89 expenditures at almost \$48 million, all for activities in the social sciences and humanities. Its objective is to facilitate the use of the library resources of the country by Canadians. The five units which comprise the library are the library systems centre, public services, cataloguing, collections, and conservation and technical services.

The National Library operates an automated on-line library data-base management system called DOBIS. See also Chapter 15, Cultural activities and leisure.

12.3.5 International Development Research Centre

Estimated 1988-89 expenditures on social sciences and humanities for the International Develop-

ment Research Centre (IDRC) were about \$41 million which represents about 40% of its budget. The balance of the Centre's expenditures was for natural sciences and engineering activities. Approximately 78% of its social sciences and humanities expenditures are for R&D, making IDRC second only to SSHRC as an R&D funder.

The Centre's objective is to initiate, encourage, support and conduct research into the problems of the developing regions of the world and into applying knowledge to the economic and social advancement of these regions.

12.4 Federal support to industry

The government has a multi-faceted program for industrial development. This program includes direct payments to industry which take the form of contracting its S&T requirements and in supporting, through contributions, worthwhile projects required by industry. The government also aims to provide a favourable climate for the private sector through tax, tariff, trade and procurement policies. The government also assists industry by providing, on a cost-recovery basis, testing facilities maintained in government laboratories.

Government contracts for R&D requirement were estimated at \$233 million for 1988-89 with the Department of National Defence, EMR and the National Research Council together accounting for 67% of the contracts.

Grants and contributions to industry were estimated at \$389 million for 1988-89. The Department of Regional Industrial Expansion accounted for 65%. Its two major programs were the Defence Industry Productivity Program (DIPP) to assist high technology industry in the defence sector, and the Industrial Regional Development Program (IRDP) which came into effect in 1983 and subsumed among others the Enterprise Development Program (EDP).

NRC, through its Industrial Research Assistance Program (IRAP) and the Program of Industry/Laboratory Projects (PILP), contributes \$84 million to industry. The latter program is designed to assist companies in technology transfer from both government and university laboratories.

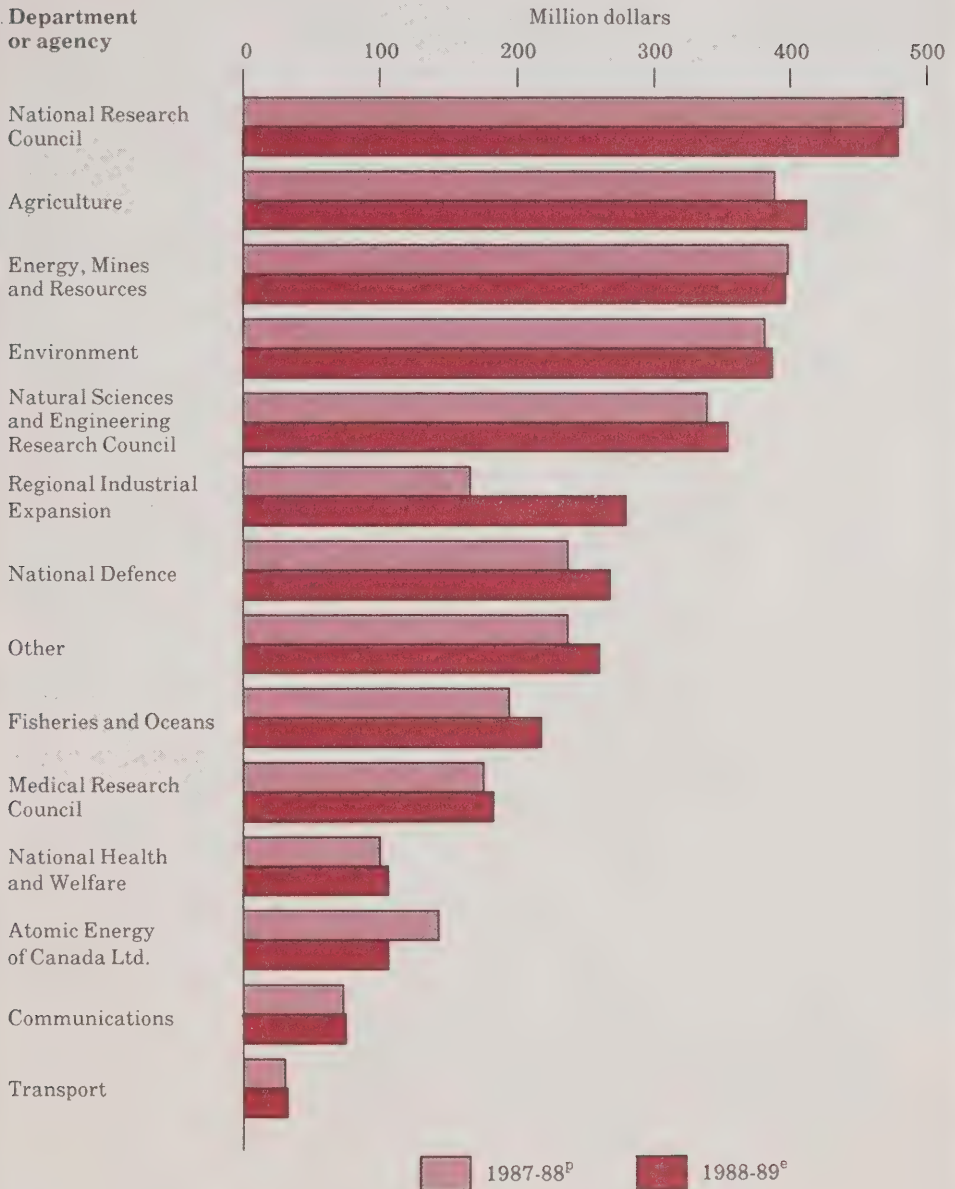
In 1986, payments for R&D in the natural sciences and engineering had a concentration of 29% in Ontario (excluding Ottawa) and 34% in Quebec (excluding Hull).

12.5 Federal support to universities

Total payments to universities were estimated at \$658 million in 1988-89 with 88% in the natural sciences and engineering and 12% in the social

Chart 12.1

Federal government expenditures on activities in the natural sciences and engineering



^E Estimate.

^P Preliminary.

sciences and humanities. Most of these payments (72%) were for R&D grants made by the three university granting councils: the Natural Sciences and Engineering Research Council (NSERC), the Medical Research Council, and the Social Sciences and Humanities Research Council (SSHRC).

NSERC was the largest of these councils with a 1988-89 budget of almost \$356 million. Since 1983-84 NSERC's budget has grown by 26%.

The Medical Research Council budget was \$183 million for 1988-89 and the SSHRC budget was \$73 million. The Department of National Health and Welfare provided funds for a \$11 million program for health research in universities.

The bulk of the funding in the natural sciences and engineering went to universities in Ontario (36%) and Quebec (23%).

12.6 Provincial research organizations

Eight provincial governments have established research councils or foundations; primary objectives are to provide technical support to local firms and to assist in the development of provincial natural resources. In 1987 total expenditures were estimated at approximately \$141 million with about 1,970 people employed. Although relatively small in comparison with other organizations, their impact on industries in their respective provinces is substantial. In aggregate these organizations receive about 40% of their funds as a grant from their own provincial governments. About 27% of their expenditures is derived from contract research on behalf of industry.

The Nova Scotia Research Foundation Corp. is a Crown provincial agency with control vested in a board of directors. Its 1987 expenditures were about \$6.7 million. The foundation performs research in fermentation and microbial technology; in chemical engineering including research on arsenic removal, methane removal, food, coal and corrosives; in ocean technology; and in marine and ground geophysics.

The New Brunswick Research and Productivity Council, created in 1962, had a 1987 budget of \$8.8 million. The Council's research includes: pest control and pesticide residue, fuel oil and coal, ore processes, mineral smelting, bed combustion of fossil fuels, nuclear reactors, oil rigs, and effects of chemical additives in the food industry.

The Centre de Recherche Industrielle du Québec, created in 1969, had a 1987 budget of \$28.6 million. The centre operates research laboratories

in both Quebec City and Montreal. It works closely with small- and medium-sized businesses covering various aspects of applied sciences in the creation of new processes and products. It stresses advanced manufacturing techniques and is studying the applications of computer-aided design and manufacturing (CAD/CAM) and robotics.

The Ontario Research Foundation, established in 1928 as an independent Crown corporation, had a 1987 budget of \$26.0 million. It performs research in energy conservation and solar systems, on long-range transport of pollutants, waste treatment, building materials including fire and flammability studies, pulp and paper, microelectronics, mineral processing, hydrometallurgy, and waste utilization. It operates a centre for alternate fuel utilization and a centre for powder metallurgy.

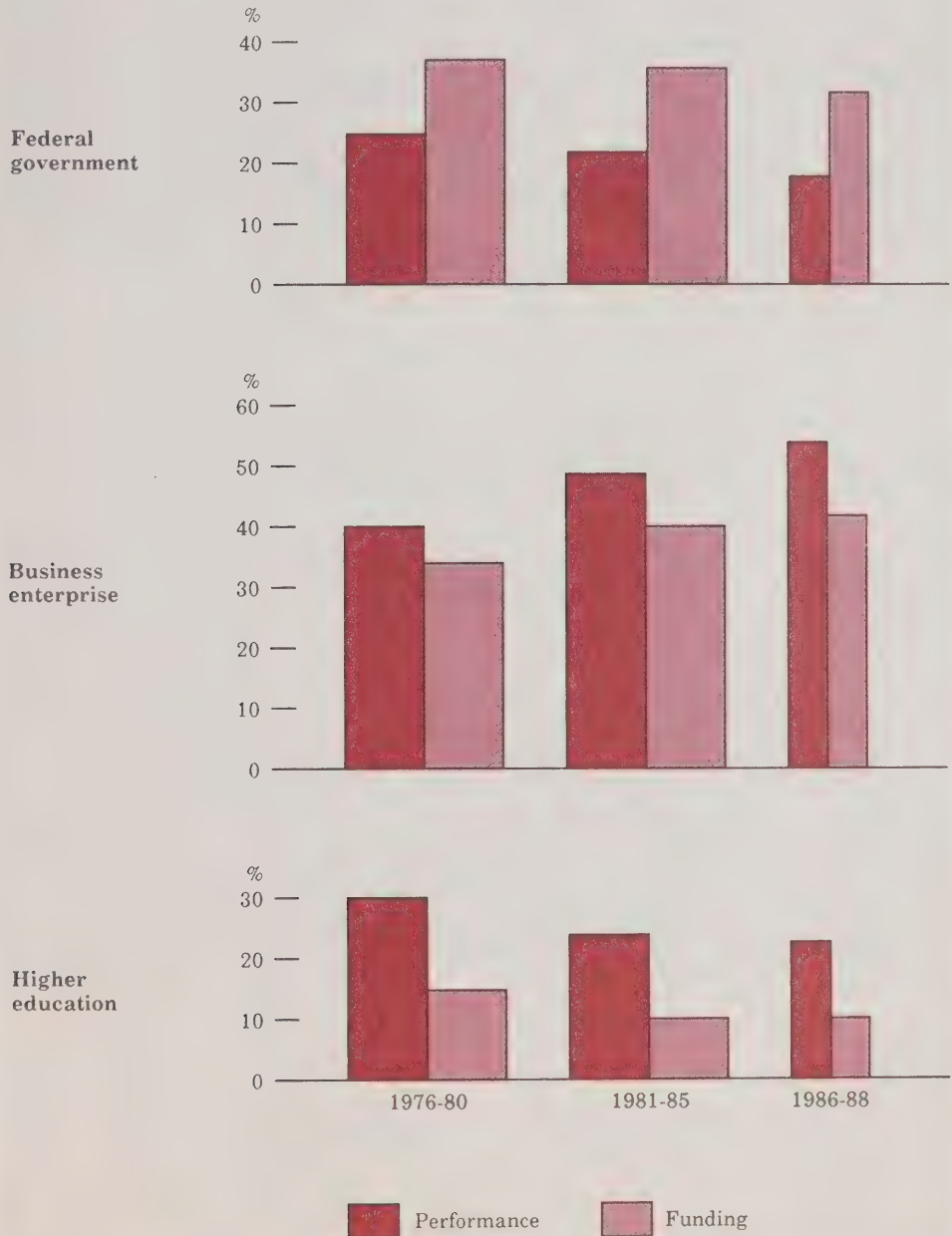
The Manitoba Research Council had a budget of \$5.5 million for 1987. The Council operates a technical information service for industry, an industrial technology centre and the Canadian Food Products Development Centre. It performs research in the areas of plastics extrusion, fibreglass, atomic absorption spectroscopy, solid waste, wood stove testing, meat processing, and bacteria in milk products.

The Saskatchewan Research Council had a 1987 budget of \$16.4 million. The Council performs research in biomass production and refining, farm energy use, sediments, ceramics, geochemistry, computer systems, computer-aided design and computer-aided manufacturing, and applied climatology. It operates a Canadian centre to design and develop innovative instruments.

The Alberta Research Council, created in 1921, had a 1987 budget of \$40.5 million, making it by far the largest of the eight organizations. The Council performs research on the geology of Alberta oil-bearing sands, bitumen recovery, steam separation of hydrocarbons from sand, coal conversion, groundwater, soil salinization, microbiology, and solar and wind energy. The Council also operates an oil sands information branch.

BC Research is a non-profit industrial research society with offices and laboratories in Vancouver, BC. Its activities enable even the smallest firms to improve their competitive position in Canadian and world markets by the use of up-to-date scientific knowledge. It is active in applied biology, chemistry, engineering — physics, ocean engineering, operations research, industrial engineering — and social impact and economic studies. In 1987, it had a budget of \$8.6 million.

Chart 12.2

Percentages of Gross Domestic Expenditure on Research and Development

12.7 National expenditures on R&D

The activity of research and development (R&D) is defined as creative work undertaken on a systematic basis to increase the stock of scientific and technical knowledge and to use this knowledge in new applications. Expenditures on R&D are an important indicator of the effort devoted to creative activity in science and technology. This effort is associated with the ability to develop new products and processes, necessary for economic and industrial growth. This is particularly true of R&D in the business enterprise sector but the level of R&D expenditures in other sectors is also useful as an indicator of Canada's contribution to world science, of the intellectual activity in Canadian institutions, and of the search for solutions to Canadian problems.

The GERD, or "Gross Domestic Expenditure on Research and Development", total R&D expenditures represent all R&D performed in a country's national territory during a given year. The GERD includes R&D performed within a country and funded from abroad but excludes payments sent abroad for R&D performed by others. It is calculated by adding together the intramural expenditures reported by institutions which performed R&D, grouped into appropriate sectors and sub-sectors.

Research and development expenditures in 1988 were expected to amount to about \$8 billion, an increase between 4% and 5% over the estimated total for 1987. The revised estimate for 1987, \$7.6 billion, represented an increase of 6% over 1986.

In Table 12.8, GERD statistics are presented in two forms. Besides its value in current dollars, the GERD is compared to Gross Domestic Product (GDP) from 1971. The GERD/GDP ratio is used to show the R&D effort in proportion to total economic activity. The figures for 1987 and 1988 are estimates and may be expected to be revised.

The GERD is made up, as noted above, from data supplied by the institutions performing R&D, grouped into sectors and sub-sectors. One of the questions asked of the performers is the source of funds for the R&D they carry out. By combining the responses of the performers, a matrix can be formed of expenditures by performing and funding sectors.

A shift in activity between different sectors of the economy is apparent. The federal government has become less important both as a performer and as a source of funds, while the importance of the business sector in both areas has grown.

12.8 Research and development in Canadian industry

While R&D is carried out by other sectors, such as the government and universities, industrial R&D is most clearly linked to technological innovation and therefore, to economic growth. Canada does not rely only on domestic R&D for new ideas and innovation. A great deal of information comes from abroad in the form of information embodied in new machinery and equipment, in the research and developments of scientists and engineers, in scientific and technical journals and in designs, drawings, tooling and manufacturing specifications.

In many ways it is more efficient to acquire the results of R&D performed by others since the cost of securing such information is usually less than the cost of duplicating it. However, some indigenous R&D is necessary not only to ensure that new inventions are appropriate to Canadian manufacturing and marketing conditions, but also to ensure that foreign R&D can be properly assimilated into our production processes. Domestic performance of R&D is, therefore, necessary, even to become effective imitators and adaptors.

Of the five R&D performing sectors: federal government; provincial government; business enterprise; higher education; and private non-profit, the business enterprise sector is the one identified with industrial R&D expenditure. It includes not only private enterprises, such as Northern Telecom, but also public enterprises such as Ontario Hydro and industrial research institutes such as the Pulp and Paper Research Institute of Canada.

Total expenditures on research and development in Canadian industry were expected to reach their highest level ever in 1988, at almost \$4.5 billion or 55% of all Gross Domestic Expenditure on Research and Development (GERD). The business enterprise sector's participation (natural sciences and engineering only) in GERD has increased from 33% in 1971 to 53% in 1986, whereas the federal government and higher education shares fell correspondingly from 29% to 20% and 34% to 23%, respectively.

Since R&D is generally not productive in the short term, it can be considered as a burden on industry rather than a direct production cost. The simplest way of measuring the effort that industry is making is to monitor the amount of self-financed R&D. In 1986, this sector funded 41% of GERD, up from 27% in 1971. Canadian industry has replaced the federal government as the major funder of R&D in Canada.

Less than 1% of Canadian firms perform R&D, and most industrial R&D in Canada is concentrated within an even smaller number of firms. Out of the approximately 3,400 companies performing R&D, about 1% accounted for almost half the R&D performed. Because of the concentration of R&D among companies, the decisions of a few firms can significantly alter overall R&D expenditures and particularly industry sector totals. Companies' R&D decisions are affected by government policies on defence, transportation and communications, as well as by national and international economic trends and their own financial positions. Six major industries — telecommunication equipment, aircraft and parts, engineering and scientific services, business

machines, computer services, and wells and petroleum products account for 50% of all intramural R&D expenditures. These industries have maintained their dominance of industrial R&D activity over the last six years.

The concentration of work done in the business enterprise sector understates industrial R&D. As discussed earlier, much of the work done in the provincial research organizations is closely related to industrial development. The federal government is also an important performer of industrial R&D. Examples of this type of R&D would include work by the Departments of Agriculture, Communications, Energy, Mines and Resources, Fisheries and Oceans, and Transport, by the National Research Council and by Atomic Energy of Canada Ltd.

Source

Science, Technology and Capital Stock Division, Statistics Canada.

FOR FURTHER READING

Selected publications from Statistics Canada

- Science and Technology Indicators, annual. 88-201
- Industrial Research and Development Statistics (with estimates), annual. 88-202
- Resources for Research and Development in Canada (with estimates), annual. 88-203. Discontinued. Last issue 1985.
- Federal Scientific Activities, annual. 88-204
- Directory of Federal Government Scientific and Technological Establishments, annual. 88-206
- An Indicator of Excellence in Canadian Science, 111 p., 1985. 88-501
- Patents as Indicators of Invention, 48 p., 1985. 88-504
- Industrial Productivity and Research and Development Indicators, 28 p., 1984. 88-505

More information about these publications is available from Statistics Canada. See Appendix F for a complete list of Statistics Canada offices.

TABLES

- .. not available

... not appropriate or not applicable

— nil or zero

-- too small to be expressed
- e estimate

p preliminary

r revised

certain tables may not add due to rounding

12.1 Federal government expenditures on activities in the natural sciences and engineering, by department or agency (million dollars)

Department or agency	1983-84	1984-85	1985-86 ^r	1986-87 ^r	1987-88 ^p	1988-89 ^c
Agriculture	351.6	387.3	401.8	405.2	388.9	411.6
Atomic Energy of Canada Ltd.	138.0	150.3	140.1	170.8	142.8	106.6
Communications	84.2	92.3	76.2	65.2	73.9	75.5
Energy, Mines and Resources	288.7 ^r	337.9 ^r	387.9	397.4	399.2	397.0
Environment	302.1	328.1	333.2	362.2	381.1	387.9
Fisheries and Oceans	205.6 ^r	247.3 ^r	237.8	212.4	195.2	217.7
Medical Research Council	140.7	157.0	161.6	168.3	175.0	183.0
National Defence	159.5	192.0	210.7	221.4	236.8	267.9
National Health and Welfare	81.0	87.5	84.3	90.7	101.0	106.7
National Research Council	411.5	484.5	423.9	468.2	484.2	479.7
Natural Sciences and Engineering Research Council	282.1	312.7	311.3	320.9	339.2	355.7
Industry, Science and Technology	163.2	170.8	199.2	188.1	166.7	280.2
Transport	38.1	43.7	36.5	30.0	31.8	34.0
Other	166.5 ^r	176.7 ^r	190.4	217.4	237.3	259.8
Total	2,812.8 ^r	3,168.1 ^r	3,194.9	3,318.2	3,353.1	3,563.3

12.2 Federal government expenditures on activities in the social sciences and humanities, by department or agency (million dollars)

Department or agency	1983-84	1984-85	1985-86 ^r	1986-87 ¹	1987-88 ^p	1988-89 ^c
Employment and Immigration	22.2	23.9	26.8	25.3	23.6	23.7
Finance	18.9	18.3	16.6	18.6	21.0	22.6
International Development						
Research Centre	24.8 ^r	31.0 ^r	33.6	36.3	38.3	41.2
National Health and Welfare	28.9	30.8	30.4	32.7	40.7	42.9
National Library	36.8	37.5	42.1	45.2	45.9	47.5
National Museums	51.5	54.8	61.3	75.2	95.9	106.5
Public Archives	20.6	21.2	20.6	22.2	20.2	23.2
Secretary of State	7.1	15.4	8.0	6.7	5.7	5.3
Social Sciences and Humanities Research Council	60.5	63.2	63.7	70.6	70.7	73.1
Statistics Canada	229.7	249.2	262.7	360.7	275.8	281.8
Treasury Board	19.6	20.6	21.5	21.0	22.5	21.1
Other	150.6 ^r	140.1 ^r	146.8	148.5	155.0	154.8
Total	671.2 ^r	706.0 ^r	734.1	863.0	815.3	843.7

¹ Census year.

12.3 Federal expenditures on natural sciences R&D and RSA, by performer (million dollars)

Performer	1983-84 ^f		1984-85 ^f		1985-86 ^f		1986-87 ^f		1987-88 ^p		1988-89 ^c	
	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%
R&D												
Intramural ¹	1,169.3	56.0	1,335.8	56.8	1,314.6	55.3	1,361.4	55.4	1,340.0	54.4	1,256.2	49.1
Industry	376.3	18.0	417.4	17.8	464.5	19.5	476.4	19.4	476.5	19.3	618.0	24.1
Universities	427.5	20.5	469.4	20.0	476.6	20.0	487.8	19.9	508.9	20.7	533.0	20.8
Non-profit institutions	18.0	0.9	13.0	0.6	10.2	0.4	8.1	0.3	11.8	0.5	10.8	0.4
Foreign	77.5	3.7	84.6	3.6	83.9	3.5	87.3	3.6	89.5	3.6	109.5	4.3
Other Canadian	21.3	1.0	29.8	1.3	29.4	1.2	35.2	1.4	36.9	1.5	33.0	1.3
Total	2,089.9	100.0	2,350.0	100.0	2,379.3	100.0	2,456.3	100.0	2,463.7	100.0	2,560.5	100.0
RSA												
Intramural ¹	568.0	78.6	648.8	79.3	651.4	79.9	697.9	81.0	706.7	79.5	810.3	80.8
Industry	63.3	8.8	81.3	9.9	77.9	9.5	85.3	9.9	95.6	10.7	99.2	9.9
Universities	39.8	5.5	44.5	5.4	45.4	5.6	42.0	4.9	42.8	4.8	47.5	4.7
Non-profit institutions	7.4	1.0	7.0	0.9	4.5	0.6	4.6	0.5	4.9	0.6	5.5	0.5
Foreign	7.9	1.1	9.4	1.1	13.1	1.6	14.2	1.6	17.8	2.0	15.5	1.5
Other Canadian	36.4	5.0	27.0	3.3	23.4	2.8	17.9	2.1	21.6	2.4	24.9	2.5
Total	722.9	100.0	818.1	100.0	815.6	100.0	861.9	100.0	889.4	100.0	1,002.9	100.0

¹ Intramural expenditures include non-program costs.**12.4 Federal expenditures on social sciences R&D and RSA, by performer (million dollars)**

Performer	1983-84 ^f		1984-85 ^f		1985-86 ^f		1986-87 ^f		1987-88 ^p		1988-89 ^c	
	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%
R&D												
Intramural ¹	48.8	39.8	52.9	36.6	57.0	40.8	54.6	37.9	57.7	39.3	63.9	39.8
Industry	3.6	2.9	4.3	3.0	3.4	2.4	3.4	2.4	3.7	2.5	3.9	2.4
Universities	42.2	34.4	53.6	37.0	44.2	31.6	47.4	32.9	49.1	33.4	52.5	32.7
Non-profit institutions	5.5	4.5	8.0	5.5	8.1	5.8	9.0	6.3	7.1	4.9	9.1	5.7
Foreign	16.1	13.1	19.3	13.3	21.7	15.5	23.6	16.4	23.4	15.9	24.9	15.5
Other Canadian	6.5	5.3	6.7	4.6	5.3	3.8	5.9	4.1	5.9	4.0	6.2	3.9
Total	122.7	100.0	144.7	100.0	139.7	100.0	144.0	100.0	146.9	100.0	160.4	100.0
RSA												
Intramural ¹	491.4	89.6	492.8	87.8	520.5	87.6	647.6	90.1	591.9	88.5	603.1	88.3
Industry	8.7	1.6	11.9	2.1	13.4	2.3	9.6	1.3	12.8	1.9	12.6	1.8
Universities	20.5	3.7	24.0	4.3	25.4	4.3	26.0	3.6	27.4	4.1	25.5	3.7
Non-profit institutions	9.0	1.6	9.2	1.6	11.4	1.9	15.2	2.1	14.9	2.2	14.8	2.2
Foreign	7.4	1.3	8.7	1.5	10.1	1.7	10.6	1.5	11.4	1.7	11.0	1.6
Other Canadian	11.6	2.1	14.6	2.6	13.6	2.3	9.8	1.4	10.0	1.5	16.2	2.4
Total	548.5	100.0	561.3	100.0	594.4	100.0	718.9	100.0	668.5	100.0	683.2	100.0

¹ Intramural expenditures include non-program costs.

12.5 Federal employees¹ engaged in R&D and RSA in the natural sciences and engineering, by major department or agency (person years)

Department or agency	1983-84 ^f	1984-85 ^f	1985-86 ^f	1986-87 ^f	1987-88 ^f	1988-89 ^p
R&D						
Agriculture	4,804	4,727	4,593	4,425	4,380	4,399
Atomic Energy of Canada Ltd.	2,500	2,484	2,401	2,451	2,414	2,300
Communications	510	559	336	346	326	324
Energy, Mines and Resources	1,530	1,655	1,650	1,571	1,565	795
Environment	849	867	828	706	746	741
Fisheries and Oceans	1,407	1,443	1,397	1,327	1,279	1,288
National Defence	1,805	1,782	1,758	1,768	1,779	1,781
National Health and Welfare	202	181	183	254	260	270
National Research Council	2,762	2,841	2,833	2,682	2,769	2,888
Other	124	130	98	97	104	134
Total	16,493	16,669	16,077	15,627	15,622	14,920
RSA						
Agriculture	784	756	556	543	544	532
Atomic Energy of Canada Ltd.	165	165	161	152	148	142
Energy, Mines and Resources	1,131	1,063	1,133	1,141	1,139	1,960
Environment	2,856	2,928	2,850	2,887	2,959	2,917
Fisheries and Oceans	926	991	982	912	867	871
National Defence	74	63	64	65	65	65
National Health and Welfare	1,012	1,052	1,064	857	877	863
National Research Council	662	674	567	574	553	577
Other	1,404	1,481	1,499	1,398	1,425	1,360
Total	9,014	9,173	8,876	8,529	8,577	9,287

¹ Excludes employees engaged in the administration of extramural research and development.

12.6 Federal employees engaged in R&D and RSA in the social sciences and humanities, by major department or agency (person years)

Department or agency	1983-84 ^f	1984-85 ^f	1985-86 ^f	1986-87 ^f	1987-88 ^f	1988-89 ^p
R&D						
Canadian Transport Commission	34	34	35	24	—	—
Consumer and Corporate Affairs	40	35	39	36	42	47
Economic Council of Canada	114	113	112	109	108	104
National Health and Welfare	9	7	2	—	—	—
Justice	20	19	16	10	10	10
National Museums	52	60	55	85	113	151
Secretary of State	47	50	48	47	49	49
Statistics Canada	146	154	157	115	115	113
Other	147	147	155	130	126	133
Total	609	619	619	556	563	607
RSA						
Economic Council of Canada	21	20	20	19	18	20
National Health and Welfare	223	206	201	202	261	269
National Museums	652	466	494	445	408	362
Secretary of State	24	25	15	8	8	8
Statistics Canada	4,505	4,442	4,412	4,301	4,253	4,112
Other	3,648	3,383	3,392	3,405	3,294	3,249
Total	9,073	8,542	8,534	8,380	8,242	8,020

12.7 Current expenditures of provincial research organizations¹, by scientific activity and by institute, 1987 (thousand dollars)

Province	Scientific research	Development	Resource surveys	Analysis and testing	Industrial engineering	Other ²	Total
Nova Scotia	667	2,134	67	1,334	333	2,134	6,669
New Brunswick	1,765	537	154	1,765	1,151	2,301	7,673
Quebec	6,332	13,004	—	2,015	392	4,422	26,165
Ontario	3,586	7,412	—	9,802	717	2,392	23,909
Manitoba	323	1,893	94	994	99	1,565	4,968
Saskatchewan	4,232	1,511	1,814	1,511	4,232	1,813	15,113
Alberta	6,348	16,927	1,763	3,879	705	5,643	35,265
British Columbia	2,468	105	—	1,552	406	3,596	8,127
Total	25,721	43,523	3,892	22,852	8,035	23,866	127,889

¹ Does not include extramural or capital expenditures.

² Feasibility studies, \$6.2 million; library and technical information, \$9.8 million; industrial innovation, \$5.2 million; and other, \$2.7 million.

12.8 Gross Domestic Expenditure on R&D in current dollars, in 1981 dollars and in percentages of the Gross Domestic Product, 1971-88

Year	GERD \$'000,000	GDP \$'000,000	GERD/GDP %	GDP implicit price index	GERD in 1981 dollars \$'000,000
1971	1,287	97,290	1.32	41.9	3,072
1972	1,357	108,629	1.25	44.3	3,063
1973	1,450	127,372	1.14	48.2	3,008
1974	1,666	152,111	1.10	55.1	3,024
1975	1,876	171,540	1.09	60.6	3,096
1976	2,044	197,924	1.03	65.8	3,106
1977	2,291	217,879	1.05	69.9	3,278
1978	2,578	241,604	1.07	74.2	3,474
1979	2,939	276,096	1.06	81.6	3,602
1980	3,507	309,891	1.13	90.2	3,888
1981	4,331	355,994	1.22	100.0	4,331
1982	5,090	374,442	1.36	108.7	4,683
1983	5,412	405,717	1.33	114.1	4,743
1984	6,089	445,604	1.37	118.0	5,160
1985	6,806 ¹	479,446	1.42	121.7	5,592
1986	7,185	509,898	1.41	125.3	5,734
1987 ^D	7,631	553,870	1.38	131.0	5,825
1988 ^D	7,970	..	..	..	..

¹ The GERD for 1985 and subsequent years has increased by about 4% due to improved response by smaller firms.

Source

12.1 – 12.8 Science, Technology and Capital Stock Division, Statistics Canada.

CHAPTER 13

TRANSPORTATION

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TRANSPORTATION

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SCHEDULED AIR PASSENGER ORIGIN AND DESTINATION, 1987

Top 10 domestic city pairs

Most domestic passenger flights either start, end, or pass through Toronto. The greatest passenger exchange is between Montreal and Toronto, with more than 1.2 million passengers travelling by air between these two cities.

During the past 10 years, the number of passengers carried by Canadian commercial air carriers increased 43%, passenger-kilometres 46%, and operating revenues 169%.

CHAPTER 13

TRANSPORTATION

Canada is the second largest country in the world, with an area recorded at 9 970 610 km² for land and freshwater; the greatest east-west distance is from Spear Island, Nfld. to the Yukon-Alaska border, 5 514 km. Throughout Canada's history, the implementation of efficient transportation systems has been continually hampered by topographic barriers: rough, rocky terrain between the Atlantic provinces and Quebec; vast stretches of rock, water and barren muskeg north of Lake Huron and Lake Superior, separating Eastern and Western Canada; and a rugged, mountainous range between the western provinces and the Pacific Coast.

In addition to this challenge is the task of linking a small population so widely dispersed over the country. This situation was presented to a newly-emerging nation, in 1867, when the proposal of Confederation was contingent on the provision of transportation facilities that would link the two coasts. Great distances separating Manitoba, Alberta, Saskatchewan and British Columbia from Canada coupled with the sparse smatterings of populations had made annexation by the United States a calculated possibility. At present, the problem persists in the designing of new transportation systems which will continue to serve the far-reaching corners of this country adequately, while overcoming geographical obstacles.

13.1 Transportation legislation

Government policies in the past followed a route of granting monies for construction of transportation systems — airports, seaports, railways and the Trans-Canada Highway. It protected emerging industries from competition, thereby allowing monopolies to be formed, while maintaining strong, regulatory control. These conditions still applied to a great extent when the first National Transportation Act was passed by Parliament in 1967. Since then, air traffic has tripled, trucking has flourished, water transportation has introduced faster, more sophisticated vessels, and railways are offering more specialized freight services.

In February 1985, the federal government reached an agreement with provincial governments on the reform of trucking regulations. This agreement became the basis for the new Motor Vehicle Transport Act, 1987. In July 1985, the government put forth its proposals for the new National Transportation Act; these proposals were passed in 1987, and came into effect January 1, 1988. The National Transportation Agency, created under the new legislation, acts as the federal government's mediator of the Canadian transportation industry. It replaces the Canadian Transport Commission. Providing guidance and direction in the application of the new Act is its prime responsibility.

The Acts support a safe national transportation system; the establishment of the most effective and efficient transportation systems, with facilities for travellers with disabilities; and the removal or modification of regulations in order to stimulate competition within the industry. This allows a high degree of innovation, thus giving transportation firms the opportunity to provide new and improved services to their customers.

The general intention of these Acts is to assist in making Canadian transportation more efficient and more cost-effective. By assisting Canadian industry to become more competitive, economic growth is encouraged in all regions of the country.

13.1.1 Air transport

The new National Transportation Act, in the field of commercial aviation, outlines changes in regulations dealing with market entry for domestic operations in Southern Canada, while maintaining the former regulatory environment in the North. Other major concerns covered by the Act are safety and the requirement of carriers to be covered by adequate insurance.

The trend toward deregulation of air services started in 1984 when government policy was revised to remove the distinction between national and regional carriers, permitting any carrier to apply for and operate on any route in the country. However, carriers were still required to demonstrate

“Public Convenience and Necessity” (PCN) before being granted rights to a proposed service.

This trend continued in July 1985, when the Minister of Transport released a white paper, “Freedom to Move”. The proposals for deregulation of domestic air services contained in the paper were incorporated in the National Transportation Act, 1987, which came into effect on January 1, 1988.

Under the new Act, market entry is governed by the criteria, “Fit, Willing and Able”, thus placing the onus on intervening third parties to prove why a licence to operate a service should not be granted to the applicant.

The National Transportation Agency (NTA) issues air carrier licences for both domestic and international services and has the power to regulate international air fares and conditions of carriage. In Southern Canada, domestic air fares and conditions of carriage are no longer regulated by any government body, but on non-competitive routes, the NTA has the power, on receipt of a complaint, to disallow certain fare increases.

13.1.2 Rail transport

The National Transportation Act, 1987 introduced changes which concern three areas: freight rates, competition and railway lines.

Freight rates. Under the new Act, shippers can now negotiate confidential contracts with individual railways. Essentially, they can shop for the rates and conditions of service which best suit their needs. Both shippers and railways are allowed the capability to develop innovative rate and service arrangements.

Competition. Many shippers are located in an area served by just one railway and cannot benefit from the alternative rate structures unless they are allowed to access other railway lines. In the past, shippers were guaranteed the right to ‘inter-switch’ freight cars from one railway to another provided it occurred within 6.4 km of the shipment’s origin or destination. Under the new Act, this limit, originally set in 1908, has been extended to 30 km. Should the shippers be located beyond this limit, they can request their local railway to move their shipment to or from the lines of a competing railway for a competitive line rate. If the parties cannot agree, the shipper can then request the agency to set a rate according to legislated guidelines.

Railway lines. To protect shippers and the public, railways may not abandon more than 4% of their lines each year until after 1992. The Governor-in-Council may extend the date of an abandonment indefinitely should such an abandonment

be judged to have a significant impact on a large region of Canada or on shippers with no adequate alternative transportation.

Lines are now easier to sell to an independent operator to be run as a smaller, short-line service. This will encourage the conversion of lines into more specialized, cost-effective operations.

If an unprofitable rail line has economic potential, the National Transportation Agency can order the railway to continue operations on a subsidized basis, subject to review after three years.

13.1.3 Road transport

Federal authority extends to all operations of extra-provincial motor carriers. These include trucking and bus companies which carry freight or passengers across a provincial boundary to another province or to another country, and their company operations within a province or territory. Each province has jurisdiction over all operations of trucking and bus companies with business only within the boundaries of that province.

The Motor Vehicle Transport Act, 1987 promotes national uniformity in market entry criteria for extra-provincial trucking, and provides for more effective safety regulation of trucking and bus services under federal jurisdiction.

The reform of the market entry test for extra-provincial trucking is occurring in two phases. On January 1, 1988, the current ‘public convenience and necessity’ test was replaced by a ‘fitness’ entry test and a ‘reverse onus’ public interest test. ‘Fit’ applicants are those who have adequate insurance coverage and comply with all applicable transportation safety regulations. The fitness test requires a satisfactory safety rating based on knowledge of, and past compliance with, transportation safety law.

Under the ‘reverse onus’ public interest test, all new, fit applicants will be granted a licence unless an opponent to the application can demonstrate that the granting of the licence would not be in the public interest. The ‘reverse onus’ public interest test is an interim measure designed to allow limited economic intervention in the entry process until the ‘fitness’ entry procedure becomes established on January 1, 1993.

13.1.4 Water transport

The National Transportation Act, 1987 deals with Northern Marine Resupply Services in the Mackenzie River and within the Western Arctic between Spence Bay in the East and the United States (Alaskan) border in the West. All carriers operating a fleet of ships whose total tonnage exceeds 50 tonnes require a licence to offer

Community Resupply Services to those isolated communities and villages requiring supplies. The issuance of the licence is subject to an evaluation of the demand and supply of such service, the support of shippers and the ability of the applicant to provide the service.

The new provisions will ensure a consistent regulatory environment capable of adjusting to changing circumstances while preserving stability and reliability of service to communities. Licensing on the basis of total fleet tonnage will give carriers more operational flexibility in terms of choosing the most suitable vessel for each task. Other marine operations are not subject to this Act.

13.2 Air transport

13.2.1 Historical perspective

In 1909, the first flight in Canada by a powered, heavier-than-air machine took place in Baddeck, NS. By the end of World War I, 2,500 Canadian flyers had been trained for military action and more refined aircraft had been developed and manufactured both for training and military action. As a result, a strong and viable aviation industry was launched in post-war Canada.

In 1924, regular airmail services commenced in Ontario and Quebec and between Winnipeg, Regina, Calgary and Edmonton. Although work was underway developing a transcontinental route for passengers and mail, aviation made a strong impact in the development of the North where it provided the only available year-round transportation to many points.

In 1937, Trans-Canada Airlines (TCA) came into existence as a non-profit Canadian airline, guaranteed by the government against any loss. Its first regular service, the same year, was between Vancouver and Seattle and a new era had begun. In 1943, TCA launched the first regular transatlantic service to regularize sporadic mail deliveries between Canadian soldiers overseas and their relatives at home. In 1964, TCA was renamed Air Canada and this name change marked a period of tremendous growth in passenger and freight services.

Canadian Pacific Railways was determined to start a national airline of its own. In 1941, it acquired 11 aircraft operating companies and established its air services under the name United Air Services Ltd. A year later, the name was changed to Canadian Pacific Air Lines (CPAL). This airline was very limited in its domestic routings initially but expanded rapidly internationally from its Vancouver base.

Services offered by Canada's two national airlines were complimented by regional carriers. These included Québecair formed in 1945, Pacific Western Airlines which started services in 1946, Eastern Provincial Airways formed in 1949 and Nordair formed in 1957.

Wardair began operations in 1953 at a base in Yellowknife, NWT. In 1962, its base was moved to Edmonton and in 1966, it became the first Canadian airline to introduce the Boeing 727 on transatlantic passenger service. Wardair became one of the world's largest charter carriers. In 1985, it began to offer international scheduled services and in 1986, to offer domestic scheduled services.

13.2.2 The era of deregulation

Since the era of deregulation began in 1984 and the Minister of Transport's white paper "Freedom to Move" was circulated in 1985, many changes have taken place in the structure of the Canadian air transport industry.

Canadian Pacific Air Lines had already purchased control of Eastern Provincial, Nordair and indirectly, Québecair, in April 1987, when Pacific Western obtained control of Canadian Pacific. The result was a new airline, Canadian Airlines International, large enough to compete domestically with Air Canada and to compete internationally with the world's major foreign airlines.

Wardair, Canada's third largest carrier was acquired by Canadian Airlines International in January 1989. For many years this airline flew only charter services, primarily to Europe, the United States and the Caribbean. In 1985, it introduced scheduled services on some of its well-established international routes. In 1986, it commenced scheduled domestic operations, however, Wardair did not have any working agreements with feeder airlines. As a result, its services were restricted to major cities.

In October 1981, Air Canada, previously totally Crown owned, made shares available for purchase by its employees and the general public which represented 45% of the company.

In order to compete effectively in the domestic sector, both Air Canada and Canadian Airlines dropped a number of shorter routes that had previously been difficult to service profitably with their large jet aircraft. Both major airlines entered into agreements with "feeder" airlines which provide scheduled service from smaller airports to and from the main centres with smaller aircraft. The agreements are primarily concerned with the co-ordination of timetables and the sharing of reservation systems and baggage handling.

In most cases, at least some degree of ownership was obtained by the major carriers. Air Canada has agreements with Air Nova (serving the Atlantic provinces), with Air Ontario, with Northwest Territorial and with Air BC. In Quebec, Air Canada was instrumental in forming its own feeder carrier, Air Alliance. Similarly, Canadian Airlines has agreements with Air Atlantic in the East, Inter Canadien in Quebec and Time Air in the West. In Ontario, it formed its own feeder airline, Canadian Partner.

These systems enable Air Canada and Canadian Airlines to compete more effectively on longer-haul domestic and international routes. At the same time, the regional feeders provide increased frequency of service to smaller urban centres with smaller state-of-the-art turbine driven propeller (turbo-prop) aircraft. Evidence of this development has been the increase in the share of traffic accounted for by turbo-prop aircraft at airports with air traffic control towers. They have increased their share of total landings and take-offs from 10% in 1980 to 20% in 1987.

Canadian charter airlines play a major role in the air transport industry. Of particular note are Nationair, based in Montreal and Worldways in Toronto. Both of these carriers operate large jet equipment and their services are primarily international, to Europe, the Caribbean and Mexico. With airline deregulation now in effect over the skies of Canada, several newly formed carriers are trying to gain a foothold in this market.

Opportunities have opened up for smaller airlines to expand their operations as a result of the withdrawal by the major airlines from shorter routes. While a limited number of smaller airlines have working agreements with the major carriers, the vast majority of the smaller airlines operate independently. In 1987, there were 103 carriers providing scheduled services, up from 77 in 1984. A further 634 provided only charter services, compared to 497 in 1984.

Important operators of connector and local services not affiliated with major carriers include: First Air, based in Ottawa; City Express, based in Toronto; Northland Air Manitoba, based in Winnipeg; Calm Air, based in Thompson, Man. and Trans-Provincial, based in Prince Rupert, BC.

13.2.3 Air transport statistics

Collection and processing of data filed under the National Transportation Act and the Statistics Act by air carriers, and administrative data on aircraft movements at Transport Canada and specified other airports, are the responsibility of the Aviation Statistics Centre, a section of the

Transportation Division of Statistics Canada. The Centre is located within the National Transportation Agency (NTA) to meet the internal information needs of both Transport Canada and the NTA. In addition, the Centre conducts Statistics Canada's air statistics publication program, including the following data.

Air carrier statistics. Since 1955, the overall trend in the number of passengers has been one of upward growth. Canadian carriers took on just under 3 million passengers in 1955, a figure which had increased to almost 32 million by 1987. Notable growth periods span the 1960s and the 1970s. The one major exception came in the 1981 to 1983 period when the economy suffered a slowdown.

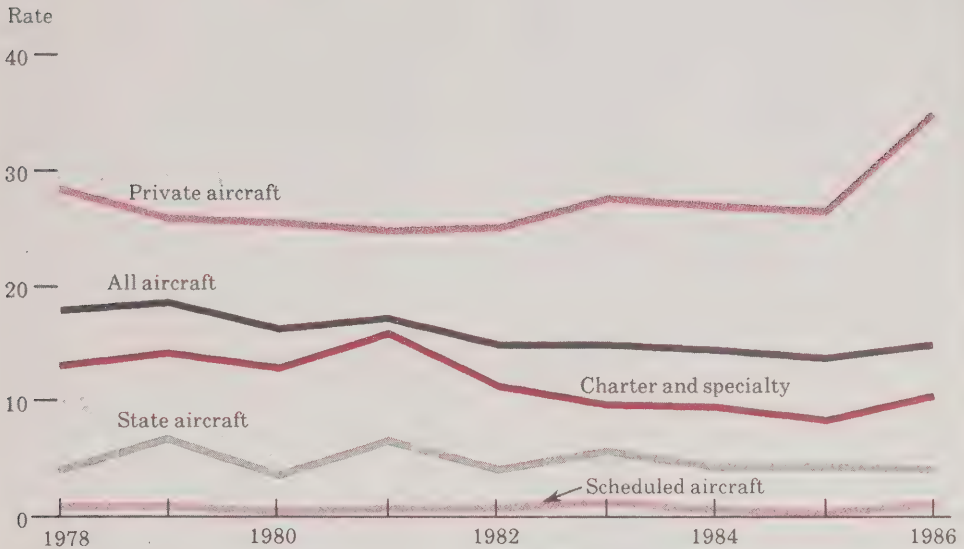
In 1955, total operating revenues generated by the carriers amounted to approximately \$153 million. In 1987, revenues totalled about \$6.3 billion, a 41-fold increase over the 32 years. The total operating expenses from 1955 to 1987 have followed approximately the same growth curve as the operating revenues, although almost consistently they have been lower than the operating revenues.

There have been some exceptions to this pattern of steady upward growth. In 1983, as Canada and the world community experienced an economic slowdown, both operating costs and revenues stagnated from the previous year. The loss amounted to approximately \$14 million. In 1984, the industry again returned to profitability with a recorded net income of \$80 million. Although the net income in 1985 was only \$4 million, it increased to \$88 million in 1986. When operating revenues peaked at \$6.3 billion in 1987, net income was estimated at a record \$165 million.

Airport statistics. Of the approximately 2,200 aerodromes in Canada in 1987, 1,221 held operating licences from Transport Canada which operated 144. These include such major airports as Lester B. Pearson (Toronto International), Vancouver, Calgary and Montreal, as well as both large and small airports at scattered locations across the country and extending far into the Arctic. Municipalities and other organizations operate the remainder of the airports. Municipal airports served by scheduled air services are eligible for an operating subsidy from the department, which also provides capital grants to help in the construction of smaller community airports.

From 1964 to 1980, itinerant aircraft movements increased steadily at major airports with air traffic control towers, from just under 1 million to 3.7 million. The average annual increase over these years was 8.8%.

Chart 13.1

Accident rates per 100,000 flying hours

Conversely, growth in local movements has suffered a number of set-backs. In the 1960s, the federal government eliminated the subsidy it had paid for students at flying clubs, and in the early 1970s, with fuel scarcities and consequent hikes in fuel prices, there were further declines in activity. The economic recession of the early 1980s served as a further set-back. The number of itinerant movements at all airports was affected. Collectively, their recorded landings and take-offs dropped from 3.7 million in 1980 to 3 million in 1985. However, this number had increased to 3.4 million by 1987.

Of the five busiest airports, in terms of itinerant movements, Lester B. Pearson International, formerly Toronto International, and Canada's busiest airport, reported increased activity, up 33.3% in 1987 compared to 1983. The airports at Vancouver and Montreal (Dorval), ranked second and third, experienced increases over the same period of 36.0% and 17.7%, respectively, while movements at Calgary and Victoria, ranked fourth and fifth, rose by 8.0% and 30.9%, respectively.

In terms of the number of passengers handled in 1987, Lester B. Pearson registered 18.35 million, Vancouver recorded 7.82 million passengers and Montreal (Dorval) had 5.97 million. Calgary was

the fourth busiest airport during the year with 4.01 million while Ottawa ranked fifth, handling 2.44 million passengers.

13.3 Rail transport

13.3.1 Historical perspective

Canadian railway history began with the opening of a 26 km line between St-Jean and LaPrairie, Quebec on July 21, 1836. Twenty-four years later, there were over 3 200 km; most of this comprised the Grand Trunk Railway which extended from Sarnia, Ont. through Toronto, Ont. and Montreal, Que. and eastward to Rivière-du-Loup, Que. A transcontinental railway joining the rail lines in the Maritimes to the Grand Trunk and the extension of the Grand Trunk westward became an important part of the Confederation dream.

The Atlantic provinces had invested heavily on building railways in hopes of linking up with the Grand Trunk; these provinces envisioned in Confederation the opportunity to become part of an intra-national railway system. With the promise of its construction written into the British North America Act of 1867, Nova Scotia and New Brunswick joined Confederation. Prince Edward Island joined Confederation in 1873 when the

Dominion government agreed to absorb its railway debt.

British Columbia also desired a connecting link with Central Canada. The rapid extension of American railways threatened to divert the trade and interests of the West toward the United States. The federal government agreed to construct a 3 200 km railway originating from the Pacific and continuing toward the Rocky Mountains which would act as a connection of the seaboard of British Columbia with the railway system of Canada. With this security, British Columbia joined Confederation in 1871.

Shortly thereafter, a declining rate of expansion coupled with political upheavals and government turnovers slowed construction of the transcontinental railroad. In 1880, the federal government contracted with a syndicate, later known as the Canadian Pacific Railway Company, to complete the transcontinental railway.

The link from Port Arthur (now Thunder Bay) to Winnipeg was completed in 1883. The following year, construction commenced on the difficult section through the wilderness north of Lake Superior, with costs running as high as \$350,000 per km of track in many sections. The last spike was driven at Craigellachie in Eagle Pass, BC on November 7, 1885. The longest railway in the world was finally operating from coast-to-coast as East and West were joined by steel.

The end of a depression in 1896 was followed by a period of rapid expansion. Textile production more than doubled, iron and steel processing increased threefold. Exports of timber and wood-pulp, nickel and copper all showed important increases. Wheat production in the western provinces brought Canada to a leading position in the wheat markets of the world. All these changes had important effects on transportation, especially the expansion of railway mileage during the closing years of the 19th century. A second transcontinental railway, the National Transcontinental, was built at government expense from Moncton, NB to Winnipeg, Man., while the Grand Trunk Pacific Railway was extended from Winnipeg to the Pacific Coast. Concurrently, the Canadian National Railway was authorized to continue its line westerly from Edmonton to the Pacific Coast and easterly from Port Arthur to Quebec. At this time, three railways spanned the Dominion, three lines through the Rocky Mountains, and three connections between Central Canada and the Maritimes. In 1917, railway mileage had almost doubled from the length it had been in 1903, compared with a 40% population growth during the same period. Canada had the highest per capita

railway mileage in the world. It was a cost the young country could not support.

In an effort to avoid a desperate situation, the government absorbed two bankrupt lines: the Grand Trunk and the Intercolonial, thereby forming the nucleus of the Canadian National Railway system in 1923. The outbreak of World War II in 1939 greatly affected all forms of transport. Construction of defence plants; conversion and expansion of existing industrial capacity steel making; and aircraft, ship, and motor vehicle production brought about heavy capital investment in transportation facilities. At the end of World War II Canada's economy further blossomed, due to the backlog of demand for all types of consumer and industrial goods, and raw materials. This pent-up demand was accompanied by significant changes in the transportation industry. New forms of transport appeared on the scene. Ten years after the war had ended, the trucking and aircraft industry had taken a significant bite out of the monopoly of the railways. The result was a more competitive transportation system with a higher sensitivity to the needs of its consumers.

The government-owned Canadian National Railway system is one of the largest railway systems in the world. As of December 1986, the Canadian National Railway and the Canadian Pacific Railway owned or controlled 90% of all railway mileage in Canada.

13.3.2 Rail transport statistics

Tracks and rolling stock. The total length of track operated in 1986 reached 93 544 km, a decrease of 2.2% from 1985 and 3.9% from 1984. In 1986, Canadian National Railways owned 54.2% of track operated in Canada while Canadian Pacific owned 35.8%. The remaining 10% was owned by Class II and Class III carriers.

In 1986, there were 11.1% more locomotives in service than in 1985. The total freight car equipment, however, decreased only 0.5% during this same period, with 129,509 units in service in 1986. Though total passenger car equipment increased nearly 1% in 1986 above the 1985 total of 1,286 cars, the 1986 total was down 2.3% from 1984. For additional information see Tables 13.4 and 13.5.

Revenue freight. In 1986, 279 million tonnes of freight, which included Canadian interlined shipments, were carried by rail, an increase of less than 1% from 1985; the total tonnes carried in 1986 were 3.1% less than the 1984 total. Canadian National carried 38.8% of the total in 1986, with Canadian Pacific carrying 29.3% and Class II carriers responsible for 31.9%.

Passengers carried. In 1986, 23 million revenue passengers travelled by rail. VIA Rail Canada Inc. carried 30.7% or 7 million passengers. Class II railways carried 69.3% or 15.9 million passengers. Total passengers in 1986 increased less than 1% from the 1985 total, and by over 5% from 1984.

Revenues. As shown in Table 13.7, total operating revenues in 1986 were down 1.3% from 1985, and less than 1% from 1984. This was due mainly to less government assistance and less revenues from services for VIA Rail. These latter revenues have declined steadily in the last three years. Revenues, in 1986, from services rendered by VIA Rail were 37.4% less than in 1985; revenues in 1986 were down 39.7% from 1984.

Employment. Employment fell 7.1% between 1985 and 1986; the 1986 employment level decreased 9.4% from 1984, due mainly to decreases in the areas of employment of road maintenance, equipment maintenance and transportation.

Energy and fuel. Railway carriers used 10.8% more electric energy in 1986 than in 1985 and registered a marked 56.4% increase over the 1984-86 period. Likewise, use of crude oil climbed 28.8% in 1986 from 1985. The use of diesel oil fell 2.9%, however, during this same period.

Railway cars used. The number of cars used in 1986 decreased 2% from those used in 1985; the 1986 total was down 4% from 1984. The number of cars used for barley in 1986 increased 113% over 1985. The number of cars used in the transportation of wheat decreased 1.9% between 1985 and 1986, and 27.7% since 1984. Pulpwood cars decreased 3.2% in 1986 from the total in 1985, while the cars shipping iron ore decreased 6.4% to 398,642. The number of cars used to transport lumber in 1986 decreased 5.5% from 1985; the number of cars used to move potash increased 3.6%.

Freight traffic. The changes in the total freight traffic have been less than 1% during the 1984 to 1986 period. Trains moved 115% more barley in 1986 than in 1985 and wheat tonnage rose 2.3%. Pulpwood movement decreased minimally in 1986 from its total in 1985; iron movement decreased 6.4%. In 1986, the movement of lumber decreased 3.3% from 1985; movement of potash increased 3.8%.

13.4 Road transport

13.4.1 Roads and highways

Information presented is based on a census of federal, provincial, and territorial departments

and agencies financing the construction and maintenance of roads and highways or having public roads and highways under their jurisdiction. The highway system reported under the jurisdiction of the different levels of government covers only those sections of road that are for the use of the general public.

Federal. In 1986, federal roads and highways in Canada reached 13 806 km in length, a 2.5% increase over 1985. Federal roads and highways steadily increased from 12 784 km in 1982 to 13 479 km in 1985, an increase of 5.4%, and an increase of almost 8% from 1982 to 1986.

In 1986, the federal government spent \$235.6 million on roads and highways in Canada. This expenditure was down 5.4% from 1985. The \$249 million spent on roads and highways in 1985 was the highest amount the federal government spent in one year during the 1982-86 period. The lowest expenditure was in 1983 at \$189.9 million, 23.7% lower than in 1985.

Provincial/Territorial. Provincial/Territorial roads and highways totalled 266 455 km in 1986, an increase of less than 0.5% from the 1985 total of 265 201 km. In 1986, \$5.2 billion was spent on roads and highways by provincial/territorial governments, 12% more than in 1985, and the highest amount spent in one year during the 1982-86 period. The lowest was in 1982, with \$3.9 billion spent by provincial/territorial governments.

13.4.2 Motor vehicles

In 1986, there were over 11 million passenger cars in Canada, one for every 2.3 persons. Once considered a luxury, the automobile has become a virtual necessity for most Canadians — for driving to work, for shopping, and for recreational activities. Higher incomes and relatively easier financing have brought ownership within reach of most families. Canada now has more cars than the number of households. Though owning and operating an automobile is considered more expensive than travelling by either rail or bus, the family car offers convenience, privacy and ready availability. The passenger car now accounts for over four-fifths of all intercity passenger travel.

Registrations. In 1986, road vehicle registrations reached 15.2 million, an increase of over 3% from 1985. Included in this statistic are registrations for passenger automobiles, trucks and truck tractors, school buses, motorcycles, mopeds, fire trucks, and ambulances. Ontario and Quebec registered the highest number of road vehicles in 1986; Ontario registered 35.2% of the total with Quebec second at 20.6%. These percentages have changed

**Chart 13.2
Kilometre
Guide**

	Calgary	Charlottetown	Edmonton	Fredericton	Halifax	Montréal	Ottawa	Québec	Regina	St. John's	Saskatoon	Thunder Bay	Toronto	Vancouver	Victoria	Whitehorse	Winnipeg	Yellowknife
Calgary	●	4917	299	4558	5042	3743	3553	4014	764	6183	620	2050	3434	1057	1123	2385	1336	1811
Charlottetown	4917	●	4949	359	232	1184	1374	945	4163	1294	4421	2878	1724	5985	6051	7034	3592	6460
Edmonton	299	4949	●	4598	5082	3764	3574	4035	785	6212	528	2071	3455	1244	1310	2086	1357	1511
Fredericton	4558	359	4598	●	346	834	1024	586	3813	1622	4070	2527	1373	5634	5700	6684	3241	6109
Halifax	5042	232	5082	346	●	1318	1508	912	4297	1349	4554	3011	1857	6119	6185	7168	3726	6593
Montréal	3743	1184	3764	834	1318	●	190	270	2979	2448	3236	1693	539	4801	4867	5850	2408	5275
Ottawa	3553	1374	3574	1024	1508	190	●	460	2789	2638	3046	1503	399	4611	4677	5660	2218	5086
Québec	4014	945	4035	586	912	270	460	●	3249	2208	3507	1963	810	5071	5137	6120	2678	5546
Regina	764	4163	785	3813	4297	2979	2789	3249	●	5427	257	1286	2670	1822	1888	2871	571	2297
St. John's	6183	1294	6212	1622	1349	2448	2638	2208	5427	●	5684	4141	2987	7248	7314	8298	4855	7723
Saskatoon	620	4421	528	4070	4554	3236	3046	3507	257	5684	●	1543	2927	1677	1743	2614	829	2039
Thunder Bay	2050	2878	2071	2527	3011	1693	1503	1963	1286	4141	1543	●	1384	3108	3174	4157	715	3582
Toronto	3434	1724	3455	1373	1857	539	399	810	2670	2987	2927	1384	●	4492	4558	5528	2099	4966
Vancouver	1057	5985	1244	5634	6119	4801	4611	5071	1822	7248	1677	3108	4492	●	66	2697	2232	2411
Victoria	1123	6051	1310	5700	6185	4867	4677	5137	1888	7314	1743	3174	4558	66	●	2763	2298	2477
Whitehorse	2385	7034	2086	6684	7168	5850	5660	6120	2871	8298	2614	4157	5528	2697	2763	●	3524	2704
Winnipeg	1336	3592	1357	3241	3726	2408	2218	2678	571	4855	829	715	2099	2232	2298	3524	●	2868
Yellowknife	1811	6460	1511	6109	6593	5275	5086	5546	2297	7723	2039	3582	4966	2411	2477	2704	2868	●

Official highway distances

little over the 1984-86 period. The largest percentage of road vehicle registrations are passenger automobiles. Of total registrations in 1986, automobiles registered 11.5 million (75.4%), a 3.2% increase from 1985 when registrations reached 11.1 million (75%). The second largest contributors are trucks and truck tractors. Their numbers were almost 2% higher in 1986 than in 1985. Total registrations by province and by type for 1984-86 are shown in Table 13.10.

Fuel sales. Net sales for gasoline by province and territory for the 1984-86 period are shown in Table 13.11. In 1986, Ontario used the largest amount of gasoline — 45.3% of the total for Canada. Quebec followed with 6.6 billion L or 25.4%. These percentages are in line with the results during the 1984-86 period. This concurs with earlier data on registrations; Ontario and Quebec have the highest numbers of registered road vehicles, and use the greatest amount of fuel. Data are unavailable for Alberta from April 1, 1978 and for Saskatchewan from April 1, 1982 because Alberta and Saskatchewan no longer collect road fuel taxes. Statistics on sales of diesel oil and liquefied petroleum gas follow those of the provinces and territories.

13.4.3 Intercity buses

In recent years, buses have replaced the train to a considerable extent for relatively short journeys, by public transportation, between cities and in rural areas. In 1984, the Canadian intercity bus industry carried over 28 million passengers. Though its major services are intercity, the industry also provides some other passenger services such as school bus, charter, tour and sightseeing. Most operators carry parcels as well.

Data on the Canadian intercity bus industry is available in Table 13.12. Total operating revenues were \$336 million in 1986, an insignificant increase from 1985; operating expenses increased less than 1% from 1985 to 1986. Fare passengers carried decreased 5.3% from 1985 to 25.5 million passengers in 1986.

13.4.4 Urban transport

The Transportation Division of Statistics Canada surveys Canadian passenger bus, urban transit and establishments primarily engaged in school bus service, sightseeing charter or limousine service to airports and stations, which in 1986 earned total gross operating revenues of \$100,000 and over. Data are available on size, structure and economic performance of Canada's urban transit system.

This information contributes to the composition of national economic statistics such as the Gross National Product and the Gross Domestic Product which, in turn, are used in the formulation of national or regional economic policies. Other secondary objectives include aiding in the assessment of the industrial growth rate reflected by this activity, providing information on regional development, and assisting in transportation studies such as transportation planning. In 1986, Class I and Class II urban transit carriers generated \$1 billion in revenues. Municipal and provincial subsidies amounted to \$1.3 billion. This total of \$2.3 billion represents almost 100% of the gross operating revenues of the industry.

Canadian urban transit statistics for the period 1984-86 are shown in Table 13.13. The total operating revenues for 1986, \$2.3 billion, were up 19.7% from 1985 and up 35% from 1984. Operating expenses showed a corresponding increase: 1986 totals were up 12.2% from 1985 and up 30.5% from 1984. Fare passengers carried were on the increase in 1986, up 5.1% from 1985 and up 7.7% from 1984.

13.4.5 Truck transport

Growth in the trucking industry in the past 40 years has been a significant development in Canadian transportation history. Some of the main reasons for this growth are the decentralization of the industry, the growth of metropolitan areas, technological improvements in truck designs and better, more abundant roads. Advantages of truck transport include flexibility; ability to adapt the vehicle to the size of the shipment thereby enabling economic handling of less-than-carload freight; door-to-door service; less warehousing and handling of goods; and lower packing costs. Technological improvements in the design of motor vehicle equipment have contributed to improved operating efficiency. With their increased capacity, trucks can carry heavier loads over longer distances. Adding to these improvements is the popular use of diesel engines. These engines economize on fuel consumption, travel greater distances, and minimize major repairs and overhauls.

For-hire trucking. A for-hire carrier is any carrier which, for compensation, undertakes the transport of goods. Summary statistics by province or territory of establishment for the for-hire trucking industry for the 1984-86 period are shown in Table 13.15.

In 1986, Canada's for-hire trucking industry reported a gross operating revenue of \$8.6 billion, up 5.1% from the 1985 total of \$8.2 billion and

up 21.3% from the 1984 total of \$7.1 billion. Operating expenses in 1986 were up 4.6% from 1985 and up 21.1% from 1984. The total equipment in use increased over the 1984-86 period. In 1986, the for-hire trucking industry had a fleet of 158,573 trucks, up less than 1% from 1985 and up 9.5% from 1984. Ontario had the highest figures with Quebec following second. The Yukon reported the lowest fleet figures.

The top commodities moved by for-hire trucks in Canada during the 1984-86 period, ranked with respect to tonnes moved in 1986 are shown in Table 13.14. In 1986, the commodity that accounted for the greatest number of tonnes was sand, gravel and crude stone with a 47.8% increase from 1985.

Private trucking. Private carriers are those owners/operators of motor vehicles carrying their own freight. Summary statistics by industry group for the period 1984-86 are shown in Table 13.16. Manufacturing had the highest operating expenses of all industries in 1986; manufacturing employed the highest number of drivers and paid the highest average annual salary — above the industry average.

The top commodities moved by private trucks in Canada during the 1984-86 period, ranked according to tonnes moved in 1986 are shown in Table 13.17. In 1986, petroleum and coal products ranked first; other food preparations ranked second; sand, gravel and crude stone were third; and non-alcoholic beverages and dairy products were fourth and fifth, respectively.

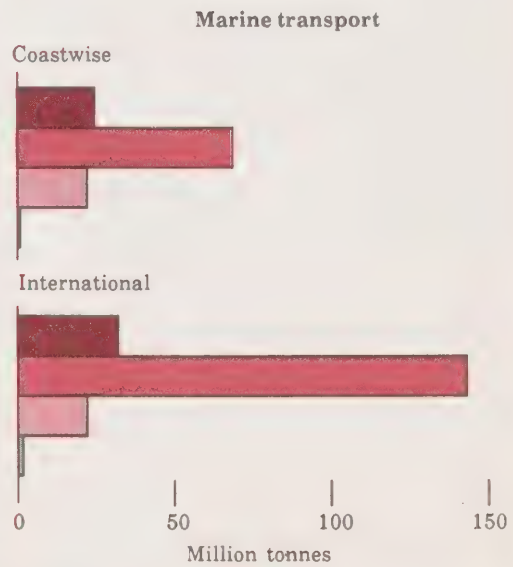
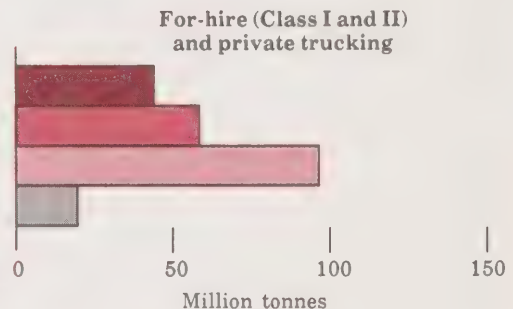
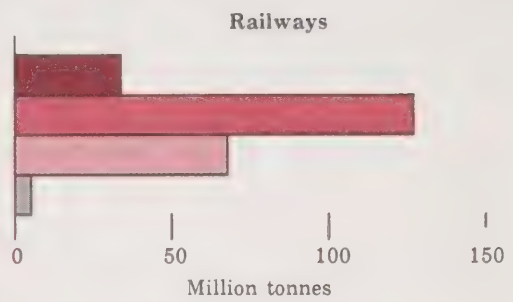
Comparative summary statistics between motor carriers of freight (MCF) fleets and private trucking (PT) fleets for 1986 are shown in Table 13.18. Ontario's private straight truck fleet was the largest with 39,197 vehicles compared with 23,955 vehicles in Quebec which ranked second. Saskatchewan had the highest private trucks to motor carriers of freight ratio at 10.1:1, followed by Prince Edward Island with an 8.5:1 ratio.

13.5 Water transport

By the end of the 19th century, negotiations began between Canada and the United States to contribute to the development of the St. Lawrence canals. This water route seemed the most economical route for the transportation of goods in and out of the industrial heart of North America. By 1900, the St. Lawrence canals had been enlarged from nine feet to a minimum depth of 14 feet in response to the demand for larger waterways for the export of grain from the rapidly expanding area west of the Great Lakes. The ever-increasing volume of freight moving through the canals soon

Chart 13.3

Commodities transported as revenue freight, 1986



- | | |
|-----------------------------------|--------------------------------|
| Food, feed, beverages and tobacco | Fabricated materials, inedible |
| Crude materials, inedible | End products, inedible |

became too large for their limited depth. Improvements began the following year, but were suspended during World War I. They were finally completed in 1932 at a cost of \$132 million. This was the first step in the development of the St. Lawrence Seaway. The growing needs of commerce, the increasing size of vessels with deeper drafts, and competition from the railways pointed to the desirability of finishing the St. Lawrence Seaway. Opening in 1959, the 400-year dream of a deep waterway extending from the Atlantic Ocean to the Great Lakes finally became a reality. This seaway has made it possible for Canada to become a world leader in the export of grain. It has also provided low cost transportation for raw materials, and has benefited all other modes of transportation as all goods carried by the seaway must be transported to or from the seaway.

While Canada's waterways were enjoying popularity and growth, the country's ocean shipping and shipbuilding industries were declining. In the earlier part of the 20th century, competition from foreign flag vessels, and the introduction of iron and steel ships saw Canadian shipbuilding and vessel ownership decline. This deterioration continued to the point of near extinction for the industry until World War I. The war gave new life to the industry. By 1918, Canada emerged among the largest merchant fleets and shipbuilding capacities in the world. The depression of the late 1920s and 1930s coupled with growing competition from other Maritime nations brought about a second decline in Canada's shipping industry. At present, Canada's shipbuilding industry continues to experience a lull in activity.

13.5.1 Freight movement

Shipping traffic. In domestic shipping, tabulations exclude vessels of less than 15 net register tons (equivalent to 42 m³), Canadian naval vessels and fishing vessels. A register ton is an internationally recognized measure used to indicate the capacity of space within the hull and the enclosed spaces above the deck of a vessel.

In 1986, over 41.4% of the total 328 million tons registered in domestic and international shipping were handled at five ports, namely Vancouver, Sept-Îles-Pointe-Noire, Montreal-Contrecoeur, Port-Cartier and Thunder Bay. These ports collectively accounted for over half of the international tonnage and over one quarter (28%) of the domestic tonnage. With over 57.2 million tons handled in 1986, Vancouver is Canada's busiest and most important port; 176.6% more freight passed through its harbours than the next busiest port, Sept-Îles-Pointe-Noire, at 20.7 million tons.

The number and net register tonnages of vessels entering Canadian customs and non-customs ports are shown in Table 13.19. In international seaborne shipping in 1986, 5.8% more ships entered Canadian ports than in 1985. Net register tons continued its downward slide — the 1986 total was 1.3% less than the 1985 total.

In domestic shipping, the number of vessels entering Canadian ports in 1986 was 5.9% less than 1985; the total of net register tons was down 4%.

Freight movement through major ports and provincial totals are shown in Table 13.20. Total cargo handled at Newfoundland ports increased 2% in 1986 from its total in 1985. St. John's decreased 13.7% between 1985 and 1986; Long Harbour increased 21.5%. Prince Edward Island ports experienced a decrease in total cargo loaded and unloaded of 26.7% in 1986 from its total in 1985 of 674 300 tonnes. Nova Scotia ports had a minimal decrease of less than .5% in the movement of outbound and inbound cargo during the same period. In contrast, the province of New Brunswick had an increase of 31.4% in port activity in 1986. At its most important port, Saint John, total loaded and unloaded cargo increased almost 46% between 1985 and 1986. Total cargo loaded and unloaded in Quebec in 1986 declined 1.7% from the corresponding total in 1985, but declined 9.3% in comparison with 1984. Sept-Îles-Pointe-Noire, one of Quebec's busiest ports, had a decrease in activity of 7.4% between 1985 and 1986. At another important port, Montreal-Contrecoeur, total loaded and unloaded cargo loadings increased 8.5% in 1986 from 1985. In Ontario, the decline in total cargo loaded and unloaded continued from past years; the 1986 total was 1.3% less than the 1985 and 13.7% less than the 1984 total. Thunder Bay, the busiest port in the province, remained fairly stable with a slight increase in port activity of 1.9% in 1986 from the total in 1985. At Churchill, Man. the total was up 66.5% in 1986 from 1985, and up 36% from 1984. British Columbia's total cargo loaded and unloaded changed minimally during the 1984 to 1986 period. In the Northwest Territories and Yukon, cargo tonnage loaded and unloaded increased 26.8% from 1985 and increased 20.2% from 1984.

Principal commodities loaded and unloaded at Canada's leading ports handling large tonnage are shown in Table 13.21. Hamilton had the largest increase in international loadings with a 42.7% increase from 1985. Montreal ports had the second largest increase at 9.1%. Quebec City ports had the largest decrease with 35.9%.

With respect to international unloaded cargo, Quebec showed the largest increase of 174.9%

with Montreal-Contrecoeur second at 38.1%. Port-Cartier had the largest drop in cargo unloadings, almost 40%, with Thunder Bay second at a decrease of 34.6%.

In domestic shipping, the port of Quebec posted the highest increase in outbound cargo with 136.9%. Port-Cartier was second with an increase of 41.1%. Montreal-Contrecoeur had the largest downward slide at 46.5%.

In domestic unloaded shipping, Sept-Îles-Pointe-Noire had the largest increase of 20.6%; Montreal was second with 10.2%. Halifax had the largest decrease at 30.2%.

Quebec showed the largest total increase from 1985 to 1986 at 16.4%; Montreal was second with almost 10.9%. Port-Cartier's activity declined the most at 11.3%.

13.5.2 Canada Ports Corporation

Canada Ports Corporation is a federal system of ports administered according to the Canada Ports Corporation Act, 1983. Of these ports, seven are autonomous local port corporations located in Halifax, Montreal, Prince Rupert, Quebec, Saint John, St. John's, and Vancouver. The other ports are administered on a divisional basis by the Canada Ports Corporation and are located in Belledune, Chicoutimi/Baie-des-Ha! Ha!, Churchill, Port Colborne, Prescott, Sept-Îles and Trois-Rivières.

Ports Canada handles nearly half of the overall Canadian port traffic and more than 95% of the container traffic. The national ports policy provides for, at the best cost possible and in a manner equitable to all users, the services necessary for Canada's international shipping trade at national, regional and local levels.

Ports Canada operates on a decentralized basis: each of the local port corporations functions with a high degree of autonomy in the administration of its own port. In providing a public service, the ports are administered according to common commercial principles.

13.5.3 Ferries

Ferries provide links between Canada's mainland and island areas. For constitutional and historical reasons, Transport Canada provides direct financial support to ferry and coastal shipping services in Eastern Canada and indirect support to a number of services in other regions.

In Eastern Canada these services are operated by Marine Atlantic (previously known as CN Marine) under a fixed price contract, with the government determining service levels and rates. The Marine Atlantic services include North

Sydney-Port-aux-Basques, North Sydney-Argentia, Tormentine-Borden, Digby-Saint John, Yarmouth-Bar Harbour (Maine), and the Newfoundland coastal service.

Other government-supported services in Eastern Canada include Wood Island-Caribou, Souris-Cap-aux-Meules, Montreal-Cornerbrook-St. John's and the Grand Manan ferry. The Newfoundland and Quebec governments also receive direct grants for small provincial ferry services.

On the West Coast ferries are operated by provincial Crown corporations such as British Columbia Ferry Corp. and private companies such as Canadian Pacific Ltd. Federal grants are provided to the province under arrangements similar to those with eastern provinces. The Swartz Bay-Tsawwassen ferry is subsidized as part of the Trans-Canada Highway.

Farther north the Northern Community Resupply Transportation Co. Ltd., a Crown corporation, operates marine transportation services on the Athabaska River and Mackenzie River, the Western Arctic Coast and in the Keewatin District of Hudson Bay.

13.5.4 Canadian Coast Guard

The Coast Guard fleet includes icebreakers, aid and supply vessels, search and rescue vessels, specialized vessels for ship channel maintenance and submarine cable operations, and fixed-wing aircraft and helicopters.

Through its radio stations and other communications facilities linked to domestic telephone and telex lines, the Coast Guard provides 24-hour, ship-to-shore safety and commercial communications, and regularly scheduled weather and navigation information broadcasts to all vessels. In some areas, particularly busy harbours, this network is supplemented by local systems which monitor and direct ship movements.

In 1988, the Canadian Coast Guard owned 15 icebreaker combination navigation aid vessels. On average, more than 1,700 ships a year receive icebreaker support either singly or in convoy or are routed through the ice. Since 1970, ports in the Gulf of St. Lawrence have been accessible throughout the year. During summer, some icebreakers take part in the annual Arctic resupply operations. The icebreakers escort a fleet of tankers and dry cargo vessels which deliver the bulk petroleum, building supplies, food, clothing, furniture and other products needed by the residents of remote settlements and military installations.

Source

Transportation Division, Statistics Canada. Co-ordinated by Audrey Kealey.

FOR FURTHER READING _____**Selected publications from Statistics Canada**

- Canadian Civil Aviation, annual. 51-206
- Air Charter Statistics, annual. 51-207
- Aviation in Canada: Historical and Statistical Perspectives on Civil Aviation, 210 p., 1986. 51-501
- Railway Transport, Railway Commodity Origin and Destination Statistics, annual. 52-214. Discontinued. Last issue 1984.
- Railway Transport in Canada, General Statistics, annual. 52-215
- Passenger Bus and Urban Transit Statistics, annual. 53-215
- Road Motor Vehicles, Registration, annual. 53-219
- Trucking in Canada, annual. 53-222
- Shipping in Canada, annual. 54-205
- Water Transportation, annual. 54-205. Discontinued. Last issue 1984. See 54-205 Shipping in Canada.
- International Seaborne Shipping Statistics, annual. 54-209. Discontinued. Last issue 1985. See 54-205 Shipping in Canada.
- Coastwise Shipping Statistics, annual. 54-210. Discontinued. Last issue 1985. See 54-205 Shipping in Canada.
- Oil Pipe Line Transport, annual. 55-201

More information about these publications is available from Statistics Canada. See Appendix F for a complete list of Statistics Canada offices.

TABLES

..	not available	e	estimate
...	not appropriate or not applicable	p	preliminary
—	nil or zero	r	revised
--	too small to be expressed	certain tables may not add due to rounding	

13.1 Summary of Canadian commercial aviation, operational statistics, 1955-87

Year	Passengers '000	Passenger kilometres '000 000	Cargo kilograms '000	Mail kilograms '000	Hours flown '000
1955	2,763	1 983	105 163	11 008	623
1956	3,370	2 479	134 999	11 599	757
1957	3,752	2 909	110 870	13 274	767
1958	4,037	3 415	80 810	14 237	728
1959	4,703	3 958	84 414	14 921	796
1960	4,830	4 507	95 401	15 709	879
1961	5,102	5 323	91 955	16 216	865
1962	5,425	5 862	93 895	17 432	843
1963	5,599	6 162	100 325	19 002	867
1964	6,031	7 435	110 386	21 230	948
1965	6,832	8 729	128 618	22 879	1,128
1966	7,727	10 044	170 909	22 235	1,375
1967	9,213	12 267	149 618	25 150	1,569
1968	9,577	13 808	185 407	26 848	1,647
1969	10,593	15 261	232 042	28 625	1,670
1970	12,031	18 605	256 420	30 068	1,669
1971	12,889	18 527	280 887	35 566	1,813
1972	14,422	21 739	307 333	38 093	1,923
1973	17,493	25 897	340 226	43 315	2,145
1974	19,601	29 166	344 429	48 096	2,301
1975	20,493	31 539	362 711	45 032	2,466
1976	20,994	32 797	341 021	55 892	2,467
1977	22,318	35 553	390 502	58 143	2,578
1978	23,649	38 249	410 204	56 756	2,664
1979	27,123	44 901	447 817	57 576	2,928
1980	28,554	46 996	399 418	59 978	3,091
1981	27,189	46 086	374 893	60 525	2,515
1982	24,447	44 179	344 703	65 431	2,454
1983	23,789	43 370	357 152	68 768	2,235
1984	27,701	46 444	464 088	80 604	2,290
1985	29,056	49 580	498 706	81 457	2,273
1986	30,819	52 170	480 341	79 464	2,365
1987 ^e	31,863	52 000	494 262	69 010	2,552

13.2 Financial statements, selected components, Canadian air carriers, Levels I-V, 1955-87 (million dollars¹)

Year	Operating revenues	Operating expenses	Total net non-operating income	Net income	Total assets	Interest expenses
1955	153	147	--	4	123	2
1956	181	172	-1	5	143	2
1957	190	190	-1	-1	181	3
1958	202	200	-3	-2	232	4
1959	220	220	-3	-3	262	5
1960	243	245	-4	-7	335	9
1961	264	266	-11	-14	366	12
1962	293	286	-12	-5	364	13
1963	319	304	-13	1	364	14
1964	347	328	-10	8	371	15
1965	408	383	-10	13	397	15
1966	479	447	-9	16	449	16
1967	561	533	-10	11	571	19
1968	635	595	-16	12	742	26
1969	721	688	-24	3	968	37
1970	842	811	-31	-2	1,166	48
1971	918	861	-37	12	1,250	49
1972	1,056	978	-35	23	1,382	47
1973	1,254	1,173	-40	24	1,669	61
1974	1,598	1,525	-68	6	2,070	91
1975	1,891	1,823	-90	-7	2,261	108
1976	2,058	2,002	-88	-16	2,112	120
1977	2,358	2,215	-72	39	2,237	104
1978	2,680	2,514	-2	98	2,784	97
1979	3,256	3,091	-8	95	3,378	117
1980	3,985	3,798	-1	112	3,963	139
1981	4,649	4,494	-64	45	4,589	210

13.2 Financial statements, selected components, Canadian air carriers, Levels I-V, 1955-87 (million dollars¹) (concluded)

Year	Operating revenues	Operating expenses	Total net non-operating income	Net income	Total assets	Interest expenses
1982	4,679	4,693	-113	-84	4,851	226
1983	4,676	4,609	-90	-14	5,307	201
1984	5,093	4,932	-73	80	5,654	216
1985	5,621	5,520	-123	4	5,942	236
1986	5,981	5,738	-142	88	6,929	270
1987 ^c	6,333	5,986	-93	165	..	225

¹ Current dollars.

13.3 Aircraft movements at airports with air traffic control towers, 1964-87

Year	Number of airports	Number of movements by type of operation ('000)			
		Itinerant ¹	Local ²	Simulated approaches ³	Total movements
1964	33	989	1,211	89	2,289
1965	33	1,114	1,483	92	2,689
1966	33	1,320	1,893	104	3,317
1967	39	1,611	2,313	114	4,038
1968	42	1,668	2,266	115	4,049
1969	46	1,821	2,381	124	4,326
1970	47	1,890	2,374	112	4,376
1971	53	2,000	2,736	159	4,895
1972	55	2,235	2,710	—	4,945
1973	56	2,587	2,667	—	5,254
1974	57	2,540	3,153	—	5,693
1975	60	2,994	3,404	—	6,398
1976	60	3,038	3,449	—	6,487
1977	59	3,228	3,461	—	6,689
1978	60	3,408	3,454	—	6,862
1979	61	3,645	3,556	—	7,201
1980	61	3,697	3,368	—	7,065
1981	60	3,569	3,132	—	6,701
1982	60	3,067	2,523	—	5,590
1983	61	2,912	2,360	—	5,272
1984	61	2,966	2,101	—	5,067
1985	61	3,031	1,907	—	4,938
1986	61	3,144	2,056	—	5,201
1987	61	3,366	2,144	—	5,510

¹ Landings or take-offs that enter or leave the tower control zone.

² Landings or take-offs that remain at all times within the tower control zone.

³ After 1971, simulated approaches were counted as locals.

13.4 Length of track operated as at Dec. 31, 1984-86 (kilometres)

Item	1984	1985	1986
Class I			
Canadian National	51 697	51 745	50 708
Canadian Pacific	34 068	34 106	33 458
VIA Rail	—	—	—
Sub-total	85 765	85 762	84 166
Class II and III	11 624	9 908	9 378
Total	97 389	95 670	93 544

13.5 Inventory of equipment in service as at Dec. 31, 1984-86

Item	1984	1985	1986
	No.	No.	No.
Locomotives			
Road freight	2,809	2,684	3,019
Road passenger	210	206	226
Yard	523	497	518
Associated equipment	157	122	134
Total	3,699	3,509	3,897
Freight car equipment			
Box car	58,831	52,416	43,746
Hopper car	22,539	21,213	28,989
Gondola car	19,492	19,234	19,310
Refrigerator car	934	924	974
Flat car	27,184	27,379	27,692
Stock car	875	818	710
Caboose	1,923	1,855	1,808
All other freight cars	10,629	6,346	6,280
Total	142,407	130,185	129,509
Passenger car equipment			
Head-end car	162	26	148
Meal service and lounge car	138	128	120
Sleeping car	170	163	159
Conventional coach	319	316	315
Tempo coach	25	25	25
LRC coach	50	100	100
Turbo train car	—	—	—
Rail diesel car	92	86	85
Commuter car	370	370	343
Total	1,326	1,214	1,295

13.6 Commodities hauled as revenue freight by railways, all carriers, as at Dec. 31, 1984-86 (tonnes)

Commodity	1984	1985	1986
Live animals			
Cattle	61 949	34 139	13 048
Other live animals	184	68	112
Sub-total, live animals	62 133	34 206	13 160
Food, feed, beverages and tobacco			
Meat, fresh or frozen	115 216	109 860	67 031
Other animal products	37 701	72 546	60 244
Barley	5 334 644	3 529 388	7 611 522
Wheat	25 001 427	19 188 984	19 637 521
Other grains	2 305 358	1 674 307	1 708 460
Milled cereals and cereal products	1 185 655	1 058 376	1 163 769
Fruits and fruit preparations	266 518	126 171	87 479
Vegetables and vegetable preparations	713 220	559 514	517 837
Sugar	324 634	304 242	264 699
Other food and food preparations	652 004	662 388	631 202
Animal feed	2 353 827	2 514 528	2 390 396
Beverages	96 042	139 764	148 848
Tobacco and tobacco products	599	—	174
Sub-total, food, feed, beverages and tobacco	38 386 691	29 939 954	34 289 030
Crude materials, inedible			
Crude animal and vegetable materials	2 646 965	2 555 614	3 028 011
Pulpwood, logs and chips	11 919 124	11 996 031	11 897 668
Other crude wood materials	5 766	5 949	6 221
Textile fibres	81 471	50 771	38 364
Iron ore	35 268 680	39 197 300	36 688 356
Nickel-copper ore	4 228 333	4 161 312	4 084 116
Bauxite ore and alumina	3 523 389	3 227 159	3 502 838
Other metallic ores	7 654 523	6 238 610	5 306 033
Scrap metal, slags and drosses	220 750	196 565	141 576
Coal	39 288 912	42 929 358	41 685 709
Crude oil and bituminous substances	2 123 414	2 069 058	2 077 381

13.6 Commodities hauled as revenue freight by railways, all carriers, as at Dec. 31, 1984-86 (tonnes) (concluded)

Commodity	1984	1985	1986
Crude materials, inedible (concluded)			
Gypsum	5 449 287	5 491 975	5 512 005
Limestone	3 189 727	2 814 900	3 579 911
Other crude non-metallic minerals	11 406 391	10 897 199	9 602 581
Waste materials	515 001	397 965	380 606
Sub-total, crude materials, inedible	127 521 519	132 229 610	127 531 225
Fabricated materials, inedible			
Lumber	9 058 040	8 874 125	8 581 250
Other wood fabricated materials	1 573 314	1 717 507	1 689 856
Wood pulp and other pulp	5 752 128	6 012 137	6 428 806
Newsprint	5 030 052	5 103 588	5 108 062
Other paper and paperboard	2 790 146	2 731 834	2 674 178
Chemicals	10 864 270	10 974 467	10 965 638
Potash	10 936 612	9 890 694	10 265 735
Other fertilizers	2 206 067	1 826 468	2 153 197
Petroleum and coal products	9 884 748	9 460 141	8 511 141
Metals and primary metal products	6 510 746	6 621 186	6 357 383
Cement	1 600 204	1 854 315	1 927 674
Other fabricated materials	3 176 479	3 321 072	3 327 273
Sub-total, fabricated materials, inedible	69 382 567	68 387 209	67 989 836
End products, inedible			
Road motor vehicles and parts	4 632 106	4 923 079	4 543 898
Other end products	934 876	954 154	799 428
Sub-total, end products, inedible	5 566 760	5 877 055	5 343 948
Special types of traffic			
Piggyback, trailers and containers	11 432 952	11 809 950	12 525 709
Freight forwarded	1 282 865	1 393 325	1 364 664
Other special traffic	903 510	902 984	701 169
Sub-total, special types of traffic	13 619 279	14 106 227	14 591 517
Non-carload shipments	41 625	33 435	27 140
Total	254 580 574	250 607 696	249 785 856

13.7 Railways, all carriers, summary statistics, 1984-86

Item		1984	1985	1986
Revenues				
Freight revenue	\$'000	6,225,670	6,137,458	6,216,841
Passenger revenue	"	218,503	244,728	250,025
Miscellaneous rail revenue	"	189,668	204,180	210,717
Revenue from services for VIA Rail	"	403,593	388,660	243,327
Government payments	"	602,246	693,756	649,573
Total revenue	"	7,639,680	7,668,782	7,570,483
Expenses				
Ways and structures	"	1,138,446	1,142,961	1,182,877
Equipment	"	1,796,502	1,807,934	1,759,826
Rail operation	"	2,426,747	2,440,583	2,330,982
General	"	1,316,248	1,453,596	1,513,679
Total expenses	"	6,677,943	6,845,074	6,787,364
Number of employees				
General	No.	12,308	12,678	13,556
Road maintenance	"	22,774	21,660	20,236
Equipment maintenance	"	27,220	26,461	23,496
Transportation	"	31,309	30,531	27,558
Total	"	93,611	91,330	84,846

13.7 Railways, all carriers, summary statistics, 1984-86 (concluded)

Item		1984	1985	1986
Fuel and power consumed				
Electric energy	'000 kWh	15 190	21 446	23 761
Diesel oil	'000 litres	2 174 985	2 259 441	2 193 239
Crude oil		92 593	104 984	135 223

13.8 Expenditures on highway, road, street and bridge construction, 1985-88¹ (million dollars)

Year and province or territory	Federal and provincial governments		Municipal governments		All other sectors		Total
	New	Repair	New	Repair	New	Repair	
1985							
Newfoundland	75.2	24.7	9.5	0.5	7.4	1.5	118.8
Prince Edward Island	22.3	11.7	0.5	0.4	0.3	0.1	35.3
Nova Scotia	88.5	81.2	21.3	2.4	1.7	2.0	197.1
New Brunswick	143.3	31.8	13.7	0.7	5.2	4.9	199.1
Quebec	373.7	139.7	293.8	34.9	28.6	24.4	895.1
Ontario	547.6	105.0	467.0	82.1	86.6	37.9	1,326.2
Manitoba	150.0	5.1	43.9	3.9	7.0	6.8	216.7
Saskatchewan	98.5	69.2	74.9	10.2	11.8	9.4	274.0
Alberta	562.4	94.8	188.4	28.0	62.5	20.9	957.0
British Columbia	791.7	191.0	112.2	13.3	108.3	58.4	1,274.9
Yukon and Northwest Territories	58.5	24.6	4.5	0.2	0.2	0.7	88.7
Canada	2,911.6	778.8	1,229.7	176.7	319.7	167.1	5,583.5
1986							
Newfoundland	67.4	29.0	17.6	0.8	5.3	1.6	121.7
Prince Edward Island	25.2	13.0	0.9	0.5	0.6	—	40.2
Nova Scotia	91.1	80.2	26.3	13.3	8.4	1.8	221.1
New Brunswick	117.9	30.9	18.8	1.2	6.6	3.7	179.1
Quebec	409.6	110.8	400.2	30.8	46.7	22.8	1,020.9
Ontario	442.1	226.4	418.4	97.5	131.2	39.9	1,355.5
Manitoba	139.1	7.3	35.5	4.4	13.4	6.3	206.0
Saskatchewan	102.7	72.8	54.5	12.5	11.9	8.1	262.5
Alberta	506.8	117.0	189.6	28.3	49.5	19.3	910.5
British Columbia	625.6	200.2	109.2	30.5	113.3	59.9	1,138.7
Yukon and Northwest Territories	70.3	26.2	4.8	0.4	0.8	0.5	103.0
Canada	2,597.9	913.9	1,275.8	220.3	387.6	163.9	5,559.3
1987							
Newfoundland	65.0	28.9	13.9	—	0.3	0.8	108.9
Prince Edward Island	30.7	3.6	1.1	0.2	0.3	—	35.9
Nova Scotia	126.2	88.5	20.2	13.0	6.6	1.5	256.0
New Brunswick	156.0	31.4	16.1	0.6	4.6	2.8	211.5
Quebec	366.2	111.1	362.2	74.4	37.2	11.7	962.8
Ontario	471.3	215.0	463.7	96.5	43.6	19.0	1,309.1
Manitoba	103.2	43.7	32.6	4.4	6.0	5.5	195.4
Saskatchewan	99.4	75.1	64.9	14.1	9.4	5.9	268.8
Alberta	425.4	100.0	165.8	31.0	94.7	17.2	834.1
British Columbia	473.7	217.3	118.6	25.5	25.1	13.9	874.1
Yukon and Northwest Territories	62.2	23.9	7.5	0.3	0.4	0.1	94.4
Canada	2,379.4	938.4	1,266.6	260.1	228.2	78.4	5,151.1
1988							
Newfoundland	82.1	29.5	13.9	—	2.5	0.8	128.8
Prince Edward Island	32.3	3.5	2.0	0.2	0.4	—	38.5
Nova Scotia	165.6	92.4	23.8	14.4	7.2	1.5	305.0
New Brunswick	160.9	32.9	14.5	0.7	4.6	2.8	216.4
Quebec	363.7	111.6	423.7	82.0	40.9	11.7	1,033.6
Ontario	466.3	218.6	582.4	105.5	66.9	19.9	1,459.6
Manitoba	109.7	44.6	42.4	4.8	10.3	5.7	217.5
Saskatchewan	100.0	74.7	64.7	14.8	10.0	6.1	270.3
Alberta	392.3	99.7	144.8	30.1	70.1	18.7	755.7
British Columbia	466.9	213.4	126.3	24.2	21.2	15.3	867.3
Yukon and Northwest Territories	53.2	22.2	8.2	0.4	0.4	0.6	85.0
Canada	2,393.0	943.3	1,446.7	277.0	234.5	83.2	5,377.8

¹ Actual 1985-86; preliminary 1987; forecast 1988.

13.9 Motor vehicles registered for road use, by province and territory, 1984-86

Province or territory	1984	1985	1986
Newfoundland	236,454	257,693	273,192
Prince Edward Island	73,802	76,126	78,619
Nova Scotia	508,859	529,267	505,116
New Brunswick	403,637	416,805	426,482
Quebec	2,921,223	2,974,099	3,145,116
Ontario	4,941,245	5,179,918	5,367,277
Manitoba	705,902	739,488	758,947
Saskatchewan	699,050 ^f	697,160	669,256
Alberta	1,745,162	1,729,287	1,739,472
British Columbia	2,129,427	2,175,032	2,222,717
Yukon	19,798	20,479	20,886
Northwest Territories	20,953	23,271	20,231
Canada	14,405,512 ^f	14,818,625	15,227,311

13.10 Motor vehicles registered, by type, and by province and territory, 1984-86

Year and province or territory	Passenger cars	Trucks, truck tractors and buses	Motorcycles and mopeds	Other	Total
1984					
Newfoundland	154,480	67,630	9,055	5,289	236,454
Prince Edward Island	52,538	18,884	2,243	137	73,802
Nova Scotia	347,303	141,769	19,117	670	508,859
New Brunswick	268,686	110,628	13,112	11,211	403,637
Quebec	2,466,201	315,248	138,719	1,055	2,921,223
Ontario	3,904,706	881,978	154,561	—	4,941,245
Manitoba	492,872	194,948	18,007	75	705,902
Saskatchewan	378,425	311,004 ^f	8,940	681	699,050 ^f
Alberta	1,274,482	411,042	59,638	—	1,745,162
British Columbia	1,427,198	620,539	81,690	—	2,129,427
Yukon	6,943	12,060	795	—	19,798
Northwest Territories	6,833	12,868	1,177	75	20,953
Canada	10,780,667	3,098,598 ^f	507,054	19,193	14,405,512 ^f
1985					
Newfoundland	168,416	73,177	10,299	5,801	257,693
Prince Edward Island	54,533	19,240	2,215	138	76,126
Nova Scotia	366,172	143,797	18,981	317	529,267
New Brunswick	278,106	114,265	13,134	11,300	416,805
Quebec	2,483,413	313,371	131,274	46,041	2,974,099
Ontario	4,093,730	929,110	157,078	—	5,179,918
Manitoba	512,733	208,199	18,481	75	739,488
Saskatchewan	387,260	301,245	8,391	264	697,160
Alberta	1,289,040	393,801	46,446	—	1,729,287
British Columbia	1,468,413	626,743	79,876	—	2,175,032
Yukon	7,302	12,459	718	—	20,479
Northwest Territories	8,953	13,121	1,030	167	23,271
Canada	11,118,071	3,148,528	487,923	64,103	14,818,625
1986					
Newfoundland	176,351	79,774	10,766	6,301	273,192
Prince Edward Island	56,224	20,252	2,003	140	78,619
Nova Scotia	337,120	146,477	18,546	2,973	505,116
New Brunswick	286,037	121,462	12,566	6,417	426,482
Quebec	2,614,312	352,460	122,026	56,318	3,145,116
Ontario	4,244,200	971,806	151,271	—	5,367,277
Manitoba	527,485	213,605	17,838	19	758,947
Saskatchewan	388,671	272,841	7,519	225	669,256
Alberta	1,295,635	401,075	42,762	—	1,739,472
British Columbia	1,526,645	618,372	77,700	—	2,222,717
Yukon	7,510	12,650	726	—	20,886
Northwest Territories	17,124	1,358	1,670	79	20,231
Canada	11,477,314	3,212,132	465,393	72,472	15,227,311

13.11 Sales of motive fuels, by province and territory, 1984-86 (thousand litres)

Item and province or territory	1984	1985	1986
Gasoline			
Newfoundland	527 142	519 745 ^f	521 886
Prince Edward Island	162 324	161 676	165 107
Nova Scotia	1 042 846	1 034 691	1 039 829
New Brunswick	932 209	900 979	914 122
Quebec	6 648 779	6 582 028	6 578 395
Ontario	11 512 800	11 574 200	11 715 600
Manitoba	1 280 468	1 292 978	1 296 202
Saskatchewan	1	1	1
Alberta	1	1	1
British Columbia	3 597 797	3 491 291	3 551 813
Yukon	53 237	53 067	54 591
Northwest Territories	34 590 ^f	33 238	21 679
Total, net sales	25 792 192 ^f	25 643 893 ^f	25 859 224
Total, gross sales	32 979 229 ^f	32 654 484 ^f	32 830 267
Diesel oil			
Total, net sales	2 936 168	3 220 870	3 304 689
Liquefied petroleum gases			
Total, net sales	34 007	42 447	40 043

^f Road tax removed (Alberta, April 1, 1978; Saskatchewan, April 1982).

13.12 Canadian intercity bus industry, 1984-86

Year and item		Classes 1 and 2 (\$500,000 and over)	Class 3 (\$100,000 -\$499,999)	Total, all classes
1984				
Establishments reporting	No.	20	18	38
Total operating revenue	\$'000	315,378	6,979	322,357
Total operating expenses	\$'000	305,308	6,388	311,696
Number of employees (including working owners)	No.	4,851	154	5,005
Fare passengers carried	'000	27,306	528	27,834
Equipment operated				
Highway buses	No.	1,209	51	1,260
Urban and suburban buses	"	191	20	211
School buses	"	49	22	71
Other equipment	"	5	11	16
Total, equipment	"	1,454	104	1,558
Total vehicle-kilometres travelled	'000 km	179 169	3 604	182 773
1985				
Establishments reporting	No.	22	26	48
Total operating revenue	\$'000	323,596	6,184	329,769
Total operating expenses	\$'000	307,652	5,798	313,450
Number of employees (including working owners)	No.	4,715	138	4,853
Fare passengers carried	'000	26,634	308	26,943
Equipment operated				
Highway buses	No.	1,224	43	1,267
Urban and suburban buses	"	165	9	174
School buses	"	49	26	75
Other equipment	"	7	15	22
Total, equipment	"	1,445	93	1,538
Total vehicle-kilometres travelled	'000 km	170 142	3 471	173 613
1986				
Establishments reporting	No.	20	14	34
Total operating revenue	\$'000	332,914	2,946	335,860
Total operating expenses	\$'000	313,360	2,717	316,077
Number of employees (including working owners)	No.	4,782	80	4,862
Fare passengers carried	'000	25,291	223	25,514

13.12 Canadian intercity bus industry, 1984-86 (concluded)

Year and item		Classes 1 and 2 (\$500,000 and over)	Class 3 (\$100,000 -\$499,999)	Total, all classes
Equipment operated	No.	1,171	15	1,186
Highway buses	"	93	8	101
Urban and suburban buses	"	41	32	73
School buses	"	47	10	57
Other equipment	"			
Total, equipment	"	1,352	65	1,417
Total vehicle-kilometres travelled	'000 km	173 060	1 657	174 717

13.13 Canadian urban transit industry, 1984-86

Year and item		Classes 1 and 2 (\$500,000 and over)	Class 3 (\$100,000 -\$499,999)	Total, all classes
1984				
Establishments reporting	No.	66	7	73
Total operating revenue	\$'000	1,687,390	3,509	1,690,899
Total operating expenses	\$'000	1,573,727	3,120	1,576,847
Number of employees (including working owners)	No.	34,365	94	34,459
Fare passengers carried	'000	1,411,438	2,237	1,413,676
Equipment operated				
Buses	No.	10,652	56	10,710
Other	"	2,502	—	2,502
Total	"	13,156	56	13,212
1985				
Establishments reporting	No.	68	16	84
Total operating revenue	\$'000	1,903,750	2,902	1,906,652
Total operating expenses	\$'000	1,831,395	2,931	1,834,326
Number of employees (including working owners)	No.	35,210	86	35,296
Fare passengers carried	'000	1,447,528	747	1,448,275
Equipment operated				
Buses	No.	10,791	61	10,852
Other	"	2,644	—	2,644
Total	"	13,435	61	13,496
1986				
Establishments reporting	No.	62	8	70
Total operating revenue	\$'000	2,279,609	3,323	2,282,932
Total operating expenses	\$'000	2,054,316	3,249	2,057,565
Number of employees (including working owners)	No.	35,619	89	35,708
Fare passengers carried	'000	1,521,101	1,259	1,522,360
Equipment operated				
Buses	No.	11,039	64	11,103
Other	"	1,929	—	1,929
Total	"	12,968	64	13,032

13.14 Movement of major commodities, by rank, for-hire trucking, 1984-86^c (tonnes)

Commodity	1984		1985		1986	
	Ranking	Tonnes moved	Ranking	Tonnes moved	Ranking	Tonnes moved
Sand, gravel and crude stone	1	22 202 520	1	19 651 964	1	29 039 575
Logs and bolts	2	9 049 650	3	8 038 624	2	11 589 055
Pulpwood chips	4	5 688 278	2	8 685 240	3	8 717 567
Lumber and sawn lumber	7	5 102 891	4	5 651 917	4	8 454 491
Cement and concrete basic products	3	5 744 707	8	5 476 010	5	6 954 329
Other crude non-metallic minerals	16	3 029 945	12	4 067 663	6	6 097 074
Fuel oil	9	4 930 570	5	5 618 848	7	6 004 991
Plate, sheet and strip, steel	5	5 448 197	7	5 482 024	8	5 927 710
Other food preparations	6	5 329 750	10	4 786 331	9	5 616 273
Dairy products	10	4 719 361	6	5 492 021	10	5 341 559
Other non-metallic mineral basic products	13	3 893 519	13	3 792 043	11	5 285 170
Petroleum and coal products (excluding those in chemicals)	14	3 188 821	14	3 698 546	12	5 281 693
Gasoline	11	4 228 165	9	5 219 573	13	4 917 078
Crude mineral oils	8	5 007 394	11	4 735 964	14	4 026 173
Cereal grains, unmilled	17	2 740 548	15	3 372 587	15	3 575 847
Chemical products, fertilizers and fertilizer materials	15	3 050 312	17	2 422 604	16	3 012 684
Other waste and scrap metals	18	2 595 604	16	2 696 571	17	2 938 629
General freight	12	4 081 687	22	1 895 944	18	2 875 811
Paper for printing	19	2 342 798	21	1 994 504	19	2 622 194
Shipping and distribution containers and closures	21	2 113 979	23	1 693 282	20	2 137 282
Motor vehicle engines, accessories, parts and assemblies	22	2 037 696	19	2 065 190	21	1 952 951
Pulpwood (roundwood)	23	1 882 614	20	1 999 392	22	1 792 046
Other chemical specialties, industrial	25	1 666 277	25	1 579 002	23	1 760 171
Vegetables, fresh or chilled	26	1 632 721	30	1 059 661	24	1 637 411
Other metal-bearing ores, concentrates and scrap	24	1 680 737	24	1 661 096	25	1 607 318
Other metal fabricated basic products	1	1	34	917 269	26	1 575 740
Passenger automobiles and chassis	28	1 527 060	18	2 080 656	27	1 413 484
Fermented alcoholic beverages	30	1 131 258	28	1 106 650	28	1 341 458
Wood pulp	1	1	1	1	29	1 323 036
Drilling, excavating, mining, oil and gas machinery	27	1 632 540	26	1 508 007	30	1 209 184
Structural clay products and refractories	1	1	32	949 460	31	1 100 661
Pipes and tubes, iron and steel	31	1 114 669	29	1 102 188	32	1 048 305
Paper end products	29	1 666 525	27	1 159 586	33	999 244
Distilled alcoholic beverages	33	860 757	1	1	34	943 321
Other wood fabricated materials	35	845 253	33	947 906	35	921 680

¹ Subject commodity not included in top 35 ranking for this year.**13.15 Canadian for-hire trucking, summary statistics, including household-goods movers, 1984-86**

	Establishments reporting No.	Operating revenues \$'000	Operating expenses \$'000	Net operating revenues \$'000	Number of employees No.	
1984						
Newfoundland	69	54,045	50,577	3,467	773	
Prince Edward Island	27	23,919	22,275	1,644	320	
Nova Scotia	148	113,657	108,256	5,401	1,794	
New Brunswick	151	264,908	248,269	16,639	2,493	
Quebec	1,377	1,282,426	1,215,907	66,518	18,964	
Ontario	1,304	2,934,812	2,807,602	127,211	41,776	
Manitoba	206	491,622	471,879	19,743	6,129	
Saskatchewan	221	206,480	195,692	10,789	2,574	
Alberta	836	932,313	877,604	54,709	10,956	
British Columbia	862	773,527	742,020	31,508	9,246	
Yukon	9	15,025	14,421	605	142	
Northwest Territories	11	21,886	21,241	643	217	
Canada	5,221	7,114,620	6,775,743	338,877	95,384	
Equipment						
	Straight trucks No.	Road tractors No.	Semi- trailers No.	Full trailers No.	Other equipment No.	Total No.
Newfoundland	247	214	322	52	—	835
Prince Edward Island	76	116	165	7	9	373
Nova Scotia	493	711	1,141	74	162	2,581
New Brunswick	323	817	2,552	43	62	3,797
Quebec	4,759	6,556	13,164	983	1,566	27,028
Ontario	7,963	14,604	35,663	926	2,665	61,821

13.15 Canadian for-hire trucking, summary statistics, including household-goods movers, 1984-86 (continued)

	Equipment					
	Straight trucks No.	Road tractors No.	Semi- trailers No.	Full trailers No.	Other equipment No.	Total No.
1984 (concluded)						
Manitoba	838	2,060	7,680	64	1,193	11,835
Saskatchewan	646	992	2,064	171	50	3,923
Alberta	2,352	4,190	9,715	1,503	616	18,376
British Columbia	2,323	3,155	7,166	711	263	13,618
Yukon	39	54	168	10	6	277
Northwest Territories	79	63	146	6	4	298
Canada	20,138	33,532	79,946	4,550	6,596	144,762
	Establishments reporting No.	Operating revenues \$'000	Operating expenses \$'000	Net operating revenues \$'000		Number of employees No.
1985						
Newfoundland	73	57,810	56,243	1,567		800
Prince Edward Island	26	27,147	25,112	2,035		289
Nova Scotia	175	131,150	126,584	4,566		1,959
New Brunswick	194	312,869	297,561	15,308		2,732
Quebec	1,613	1,446,237	1,368,430	77,807		20,243
Ontario	1,539	3,366,697	3,238,839	127,858		44,088
Manitoba	228	563,999	542,005	21,994		6,433
Saskatchewan	281	234,419	226,982	7,437		2,947
Alberta	1,018	1,145,338	1,069,738	75,600		12,648
British Columbia	1,095	880,982	851,290	29,692		9,554
Yukon	14	16,854	16,925	-71		164
Northwest Territories	14	26,142	25,000	1,141		237
Canada	6,270	8,209,644	7,844,709	364,934		102,094
	Equipment					
	Straight trucks No.	Road tractors No.	Semi- trailers No.	Full trailers No.	Other equipment No.	Total No.
Newfoundland	247	225	397	32	2	903
Prince Edward Island	87	95	140	39	13	374
Nova Scotia	497	775	1,223	136	138	2,769
New Brunswick	343	818	2,534	81	85	3,861
Quebec	5,442	6,721	13,176	1,201	1,737	28,277
Ontario	7,975	15,953	39,837	1,135	2,901	67,801
Manitoba	884	2,687	8,644	78	1,165	13,458
Saskatchewan	599	1,107	2,168	149	96	4,119
Alberta	2,569	4,788	10,833	1,704	824	20,718
British Columbia	2,355	3,543	6,705	1,172	448	14,223
Yukon	58	66	191	10	6	331
Northwest Territories	85	68	196	10	16	375
Canada	21,141	36,846	86,044	5,747	7,431	157,209
	Establishments reporting No.	Operating revenues \$'000	Operating expenses \$'000	Net operating revenues \$'000		Number of employees No.
1986						
Newfoundland	79	69,416	66,006	3,410		929
Prince Edward Island	29	32,666	31,717	949		315
Nova Scotia	181	138,708	132,350	6,358		2,034
New Brunswick	180	338,042	318,605	19,437		3,016
Quebec	1,496	1,521,618	1,443,262	78,356		19,451
Ontario	1,532	3,476,070	3,308,267	167,804		41,317
Manitoba	236	750,814	725,004	25,810		7,702
Saskatchewan	255	227,399	216,194	11,205		2,618
Alberta	1,106	1,140,233	1,074,155	66,708		12,517
British Columbia	1,093	892,296	853,233	39,063		9,401
Yukon	12	14,001	14,329	-328		149
Northwest Territories	12	26,817	25,518	1,299		248
Canada	6,211	8,628,080	8,208,640	420,071		99,697

13.15 Canadian for-hire trucking, summary statistics, including household-goods movers, 1984-86 (concluded)

	Equipment					Total. No.
	Straight trucks No.	Road tractors No.	Semi- trailers No.	Full trailers No.	Other equipment No.	
1986 (concluded)						
Newfoundland	271	291	444	71	60	1,137
Prince Edward Island	78	131	180	17	4	410
Nova Scotia	466	816	1,302	111	169	2,864
New Brunswick	420	916	2,576	37	78	4,027
Quebec	4,518	7,037	15,093	1,054	1,400	29,102
Ontario	7,595	15,131	40,246	1,081	2,835	66,888
Manitoba	848	2,873	9,781	225	1,061	14,788
Saskatchewan	558	1,058	2,197	196	63	4,072
Alberta	2,590	4,878	11,190	1,307	924	20,889
British Columbia	2,200	3,439	6,779	734	577	13,729
Yukon	49	59	188	3	19	318
Northwest Territories	68	87	188	2	4	349
Canada	19,661	36,716	90,164	4,838	7,194	158,573

13.16 Private trucking, summary statistics, by industry group, 1984 and 1986

Year and item		Construction	Manufacturing	Others ¹	Government	Wholesale	Retail	Total
1984								
Firms reporting	No.	883	567	486	480	443	95	2,954
Operating expenses								
Drivers on company payroll	\$'000	268,458	342,182	135,347	448,439	259,050	92,993	1,546,469
Drivers leased	"	2,509	23,822	1,555	1,992	5,673	7,597	43,148
Mechanics	"	52,720	37,618	31,433	94,853	24,313	5,050	245,987
Others	"	28,803	38,095	27,243	61,993	35,995	8,435	200,564
Fuel (including fuel tax)	"	125,883	150,336	89,558	105,999	104,916	27,324	604,016
Repairs and maintenance (including purchased repairs, tires and lubricants)	"	138,950	140,419	96,724	136,903	102,187	17,817	633,000
Broker operators	"	58,339	53,431	44,453	48,182	47,412	1,762	253,579
Purchased transportation railroad (piggyback)	"	26	2,746	2,105	10	2,272	6,028	13,187
Vehicle rent without drivers	"	5,744	43,802	15,459	4,856	24,551	12,469	106,881
Insurance and licences	"	23,645	23,810	12,695	13,852	19,275	3,527	96,804
Depreciation on transport equipment	"	57,989	54,074	33,973	29,624	44,991	8,175	228,826
Other expenses	"	14,541	21,602	29,163	5,573	22,015	15,261	108,155
Total	"	777,607	931,937	519,708	952,276	692,650	206,438	4,080,616
Employees								
Drivers	No.	12,228	13,533	5,847	19,817	9,933	3,881	65,239
Salary and wages	\$'000	270,967	366,004	136,902	450,431	264,724	100,589	1,589,617
Average salary	\$	22,159	27,045	23,414	22,729	26,650	25,918	24,366
Mechanics	No.	2,130	1,344	1,146	3,651	881	186	9,338
Salary and wages	\$'000	52,720	37,618	31,433	94,853	24,312	5,050	245,986
Average salary	\$	24,751	27,989	27,428	25,979	27,596	27,151	26,342
Equipment operated (owned or leased), distance travelled and fuel consumed								
Straight trucks	No.	26,284	14,635	10,041	36,467	10,293	3,262	100,982
Total distance travelled	'000 km	707 077	428 036	321 771	678 317	338 368	74 005	2 547 574
Average distance per unit	km	26 901	29 247	32 045	18 600	32 873	22 686	25 228
Total fuel consumed	'000 L	218 505	161 559	134 496	239 462	116 354	24 752	895 128
Road tractors	No.	2,561	4,276	1,801	497	2,768	844	12,747
Total distance travelled	'000 km	106 954	369 846	108 265	12 919	224 118	88 570	910 672
Average distance per unit	km	41 762	86 493	60 113	25 993	80 967	104 940	71 442
Total fuel consumed	'000 L	65 819	203 708	71 351	7 716	127 199	39 328	515 121
1986								
Firms reporting	No.	616	561	577	424	424	74	2,676
Operating expenses								
Drivers on company payroll	\$'000	101,463	404,534	203,128	177,035	265,640	74,799	1,226,599
Drivers leased	"	1,401	28,640	2,197	1,782	13,770	9,999	57,789
Mechanics	"	32,821	44,664	62,532	67,198	24,404	5,209	236,828
Others	"	19,617	53,249	39,529	46,258	50,122	10,436	219,211
Fuel (including fuel tax)	"	83,180	153,528	157,780	92,835	109,057	33,188	629,568

13.16 Private trucking, summary statistics, by industry group, 1984 and 1986 (concluded)

Year and item		Construc- tion	Manufac- turing	Others ¹	Govern- ment	Wholesale	Retail	Total
1986 (concluded)								
Operating expenses (concluded)								
Repairs and maintenance (including purchased repairs, tires and lubricants)	\$'000	96,184	144,224	171,773	128,328	100,705	21,537	662,751
Broker operators	"	48,797	65,587	69,156	41,861	52,342	5,191	282,934
Purchased transportation, railroad (piggyback)	"	48	13,106	3,250	...	3,319	9,460	29,183
Vehicle rent without drivers	"	6,211	50,863	28,714	6,985	37,390	22,300	152,463
Insurance and licences	"	21,391	29,874	29,274	14,559	24,960	7,696	127,754
Depreciation on transport equipment	"	41,466	100,904	104,429	39,208	50,908	15,725	352,640
Other expenses	"	10,013	32,413	42,093	3,989	27,761	9,121	125,390
Total	"	462,592	1,121,586	913,855	620,038	760,378	224,661	4,103,110
Employees								
Drivers	No.	4,588	13,756	8,302	7,687	9,850	3,931	48,114
Salary and wages	\$'000	102,864	433,173	205,326	178,818	279,410	84,797	1,284,388
Average salary	\$	22,420	31,490	24,732	23,262	28,366	21,571	26,695
Mechanics								
Salary and wages	\$'000	1,236	1,503	2,254	2,411	814	218	8,436
Average salary	\$	26,554	29,716	27,743	27,871	29,980	23,893	28,073
Equipment operated (owned or leased), distance travelled and fuel consumed								
Straight trucks	No.	18,384	15,260	38,327	36,561	10,837	3,080	122,449
Total distance travelled	'000 km	479 507	432 784	923 555	647 027	319 995	81 198	2 884 066
Average distance per unit	km	26 083	28 361	24 097	17 697	29 528	26 363	23 553
Total fuel consumed	'000 L	151 436	162 245	298 613	211 157	104 249	23 606	951 306
Road tractors								
Total distance travelled	'000 km	77 442	354 754	132 313	7 159	280 041	169 779	1 021 488
Average distance per unit	km	49 642	83 807	67 335	20 224	88 789	134 319	81 523
Total fuel consumed	'000 L	41 586	191 232	76 548	4 279	155 416	66 010	535 072

¹ The industry group 'Others' includes mining, fishing, logging, etc.

13.17 Movement of major commodities, by rank, private trucking, 1984-86 (tonnes)

Commodity	1984		1985		1986	
	Ranking	Tonnes moved	Ranking	Tonnes moved	Ranking	Tonnes moved
Petroleum and coal products	1	9 157 051	1	11 453 395	1	13 416 641
Other food preparations	2	5 520 223	3	4 459 186	2	6 249 159
Sand, gravel and crude stone	9	2 128 539	4	4 207 202	3	3 914 480
Non-alcoholic beverages	3	3 184 956	6	3 663 934	4	3 695 042
Dairy products	5	2 996 199	5	3 912 344	5	3 250 698
Fermented alcoholic beverages	8	2 348 602	9	2 440 921	6	2 456 498
Refined and manufactured gases, fuel type	16	798 180	14	1 845 710	7	2 400 498
Cement and concrete basic products	10	2 075 231	2	5 346 362	8	2 213 259
General freight	4	3 019 316	8	3 582 724	9	1 937 622
Lumber and sawn lumber	6	2 705 653	7	3 632 292	10	1 791 440
Other wood fabricated materials	1	1	34	382 012	11	1 769 419
Gasoline	1	1	10	2 196 562	12	1 541 008
Plate, sheet and strip, steel	15	1 116 005	16	1 411 235	13	1 523 076
Other bakery products	12	1 297 706	1	1	14	1 292 124
Shipping and distribution containers and closures	14	1 200 755	12	2 090 570	15	1 276 376
Pulpwood (roundwood)	7	2 366 386	13	1 993 259	16	1 216 189
Bolts, nuts, nails, screws and basic hardware	19	704 798	17	1 071 989	17	1 212 888
Insulated wire and cable	1	1	1	1	18	1 176 185
Complete feed	24	456 395	19	851 291	19	952 165
Broad woven fabrics, man-made fibres	1	1	1	1	20	809 409
Pulpwood chips	1	1	1	1	21	807 124
Vegetables, fresh or chilled	22	498 894	18	950 631	22	744 127
Other metal	1	1	1	1	23	690 706
Chemical elements (excluding radioactive, ferrous and non-ferrous metals)	23	465 979	1	1	24	652 293
Cereal grains and byproducts processed for feed	1	1	23	587 232	25	651 041
Meat (except poultry), fresh, chilled, or frozen	28	363 836	20	813 086	26	626 382
Castings and forgings, iron and steel	20	619 185	25	502 022	27	559 870
Cereal grains, unmilled	21	523 418	26	484 461	28	550 149
Logs and bolts	11	1 343 334	11	2 156 185	29	511 247
Other non-metallic mineral basic products	29	363 673	27	483 996	30	482 148

13.17 Movement of major commodities, by rank, private trucking, 1984-86 (tonnes) (concluded)

Commodity	1984		1985		1986	
	Ranking	Tonnes moved	Ranking	Tonnes moved	Ranking	Tonnes moved
Paper end products	14	1 200,755 ¹	22	664 899	31	438 333
Newspaper	1	—	32	400 953	32	434 038
Other waste and scrap materials	18	742 543 ¹	21	669 135	33	401 028
Household furniture (including knocked down ²)	—	—	—	—	34	376 273
Paper for printing	34	281 469	1	—	35	374 967

¹ Subject commodity not included in top 35 ranking for this year.² Furniture requiring assembly.

13.18 Motor carriers of freight (MCF) and private trucking (PT), comparative statistics, 1986

Item		Newfoundland		Prince Edward Island		Nova Scotia			
		MCF	PT	MCF	PT	MCF	PT		
Equipment operated									
Straight trucks	No.	271	1,634	78	660	466	3,910		
Road tractors	"	291	69	131	56	816	236		
Trailers	"	515	106	197	76	1,413	421		
Other	"	60	—	4	—	169	—		
Total	"	1,137	1,809	410	792	2,864	4,567		
Fuel consumed									
Gasoline	'000 L	1 595	6 749	322	2 173	3 804	16 681		
Diesel	"	14 363	11 153	4 988	2 362	35 896	18 086		
Propane	"	—	33	—	—	67	250		
Natural gas	"	—	—	—	—	—	—		
Total ¹	"	15 958	17 935	5 310	4 535	39 766	35 017		
Fuel cost	\$'000	8,693	7,912	2,597	2,454	19,100	16,868		
		New Brunswick		Quebec		Ontario		Manitoba	
		MCF	PT	MCF	PT	MCF	PT	MCF	PT
Equipment operated									
Straight trucks	No.	420	2,354	4,518	23,955	7,595	39,197	848	5,830
Road tractors	"	916	179	7,037	3,217	15,131	5,660	2,873	425
Trailers	"	2,613	388	16,147	7,170	41,327	15,560	10,006	866
Other	"	78	—	1,400	—	2,835	—	1,061	—
Total	"	4,027	2,921	29,102	34,342	66,888	60,417	14,788	7,121
Fuel consumed									
Gasoline	'000 L	3 905	9 503	27 880	96 670	52 694	148 050	5 715	25 416
Diesel	"	50 282	18 043	375 963	230 601	618 237	405 074	133 969	26 481
Propane	"	—	650	1 192	2 725	8 804	42 977	618	1 988
Natural gas	"	—	—	—	1 209	—	4 015	—	485
Total ¹	"	54 187	28 197	405 034	331 206	679 734	600 116	146 233	54 369
Fuel cost	\$'000	26,208	13,316	190,142	154,349	301,788	243,420	613,301	22,280
		Saskatchewan		Alberta		British Columbia		Yukon	
		MCF	PT	MCF	PT	MCF	PT	MCF	PT
Equipment operated									
Straight trucks	No.	558	5,635	2,590	21,163	2,200	17,631	49	291
Road tractors	"	1,058	442	4,878	1,309	3,439	874	59	21
Trailers	"	2,393	922	12,497	2,496	7,513	1,990	191	20
Other	"	63	—	924	—	577	—	19	—
Total	"	4,072	6,999	20,889	24,968	13,729	20,495	318	332
Fuel consumed									
Gasoline	'000 L	4 760	29 337	15 064	99 212	11 354	59 659	434	790
Diesel	"	56 689	23 381	277 630	74 489	155 098	91 557	2 649	950
Propane	"	76	1 458	3 354	19 948	3 972	8 250	—	—
Natural gas	"	—	—	—	2 117	—	1 715	—	—
Total ¹	"	61 524	54 177	296 049	195 766	170 423	161 180	3 082	1 739
Fuel cost	\$ '000	24,198	20,450	104,579	78,028	76,651	68,410	1,278	962

13.18 Motor carriers of freight (MCF) and private trucking (PT), comparative statistics, 1986 (concluded)

Item		Northwest Territories		Canada	
		MCF	PT	MCF	PT
Equipment operated					
Straight trucks	No.	68	189	19,661	122,449
Road tractors	"	87	42	36,716	12,530
Trailers	"	190	71	95,002	30,056
Other	"	4	—	7,194	—
Total	"	349	302	158,573	165,035
Fuel consumed					
Gasoline	'000 L	206	779	127 731	495 017
Diesel	"	3 830	1 363	1 729 593	903 542
Propane	"	—	—	18 083	78 279
Natural gas	"	—	—	—	9 540
Total ¹	"	4 036	2 142	1 875 406	1 486 378
Fuel cost	\$'000	1,527	1,117	818,092	629,567

¹ Totals may not add due to rounding.

13.19 Vessels entered at Canadian ports, 1980-86

Year	In international seaborne shipping		In domestic shipping ¹		Total	
	Vessels	Net register tons ²	Vessels	Net register tons ²	Vessels	Net register tons ²
1980	28,754	168,477,033	38,015	87,846,321	66,769	256,323,354
1981	25,321	170,404,933	34,271	81,637,381	59,592	252,042,314
1982	24,791	152,476,124	29,148	74,965,550	53,939	227,441,674
1983	26,100	158,990,860	30,363	98,409,171	56,463	257,400,031
1984	22,515	168,783,972	28,868	90,050,658	51,383	258,834,630
1985	26,555	167,701,297	27,228	79,243,728	53,783	246,945,025
1986	28,086	165,577,375	25,616	76,056,320	53,702	241,633,695

¹ The Transportation Division has decided to use the term "domestic" rather than "coastwise" when referring to marine activity, so as to indicate that this activity includes inland shipping as well.

² The capacity of the spaces within the hull, and the enclosed spaces above the deck, available for cargo and passengers; excluding spaces used for the accommodation of officers and crew, navigation, propelling machinery and fuel. A register ton is equivalent to 100 cu ft and it is expected that this internationally recognized measure, like the nautical mile and the knot, will continue in use for some considerable time.

13.20 Cargoes loaded and unloaded at principal Canadian ports, by province, 1986, with totals for 1984-86 (thousand tonnes)

Province and port	International		Coastwise		Total		
	Loaded	Unloaded	Loaded	Unloaded	1986	1985	1984
NEWFOUNDLAND	1 308.0	1 117.0	244.3	2 424.0	5 093.3	4 995.0	4 591.6
St. John's	16.6	45.5	53.9	755.1	871.1	1 009.0 ^r	889.5
Holyrood	0.3	397.1	3.3	110.7	511.4	615.5	343.6
Long Harbour	200.6	508.4	—	0.2	709.2	583.9	683.4
Corner Brook	186.7	33.0	22.0	263.0	504.7	535.3	485.0
Botwood	255.6	33.7	1.5	114.5	405.3	350.1	377.3
PRINCE EDWARD ISLAND	86.0	38.0	—	370.2	494.2	674.3	627.3
Charlottetown	22.2	28.0	—	520.0	570.2	473.0	459.6
NOVA SCOTIA	8 760.0	5 826.0	4 036.7	1 665.0	20 287.7	20 370.0 ^r	19 844.2
Halifax	4 431.9	5 728.0	2 591.8	733.4	13 485.1	13 697.8	12 804.1
Sydney	466.0	23.7	141.9	632.0	1 263.6	1 183.0	1 372.3
Port Hawkesbury	1 543.8	26.7	23.8	76.0	1 670.3	1 838.8	2 153.5
NEW BRUNSWICK	5 685.0	6 029.0	1 129.0	675.0	13 518.0	10 286.5	10 703.7
Saint John	4 794.7	5 696.2	1 123.0	325.9	11 939.8	8 178.7	9 323.3
QUEBEC	48 852.6	20 034.9	12 672.3	19 774.5	101 334.3	103 139.0	111 772.8
Sept-Îles	17 657.6	868.3	1 592.4	570.4	20 688.7	22 332.1	23 163.9
Port-Cartier	14 568.8	723.4	1 514.8	2 530.7	19 337.7	21 797.7	21 748.9
Montreal	6 450.9	8 226.1	1 376.1	4 773.4	20 826.5	19 186.9	21 944.7

13.20 Cargoes loaded and unloaded at principal Canadian ports, by province, 1986, with totals for 1984-86 (thousand tonnes) (concluded)

Province and port	International		Coastwise		Total		
	Loaded	Unloaded	Loaded	Unloaded	1986	1985	1984
QUEBEC (concluded)							
Baie Comeau	3 211.1	1 114.5	325.9	2 750.3	7 401.8	6 612.5	7 738.8
Sorel	2 207.5	383.9	42.8	3 039.2	5 673.4	4 884.4	4 356.5
Quebec City-Lévis	2 586.3	4 917.9	1 963.7	2 584.4	12 052.3	14 403.6	17 564.8
Port-Alfred	168.4	2 736.2	—	106.2	3 010.8	3 072.4	3 703.2
Havre Saint-Pierre	216.0	—	2 181.4	9.4	2 406.8	2 840.4	1 988.2
Trois-Rivières	1 349.0	381.2	14.2	1 015.1	2 759.5	2 061.7	3 116.6
ONTARIO	9 724.7	22 616.9	22 589.0	15 634.2	70 564.8	71 485.5	81 732.3
Thunder Bay	2 913.4	88.7	14 316.8	368.4	17 687.3	17 356.4	23 475.1
Hamilton	544.7	5 176.5	97.7	4 594.9	10 413.8	10 305.9	12 373.2
Nanticoke	60.0	5 273.8	268.1	2 424.8	8 026.7	8 712.5	11 215.9
Sarnia-Courtright	1 188.5	2 282.2	1 454.6	375.6	5 300.9	6 147.5	7 152.1
Sault Ste Marie	118.8	3 855.4	251.0	417.6	4 642.8	5 260.6	4 735.6
Windsor	861.9	1 124.0	1 013.3	589.5	3 588.7	3 420.5	3 293.3
Clarkson	408.3	172.5	62.9	2 517.7	3 161.4	3 217.5	2 241.1
Toronto	91.1	784.5	2.7	981.9	1 860.2	1 716.5	1 897.2
Goderich	1 076.7	—	762.0	198.5	2 037.2	1 570.2	2 413.0
Colborne	742.3	93.7	2 464.6	—	3 300.6	1 149.7	2 146.2
Pictou	495.8	227.7	344.7	75.6	1 143.8	1 066.4	994.6
MANITOBA	590.5	—	43.1	—	633.6	380.5	465.7
Churchill	590.5	—	43.1	—	633.6	380.5	465.7
BRITISH COLUMBIA	69 142.9	6 346.5	19 766.8	19 671.5	114 927.7	116 002.2	112 854.0
Vancouver	49 826.4	2 938.0	2 183.4	2 267.6	57 215.4	56 228.2	59 072.0
Prince Rupert	9 973.1	8.6	336.3	259.7	10 577.7	9 965.1	8 173.4
New Westminster	815.5	1 364.9	1 077.1	1 497.6	4 755.1	5 511.1	5 481.8
Howe Sound	13.6	—	1 314.0	3 526.9	4 854.5	4 296.2	3 464.6
North Arm Fraser River	—	47.2	1 673.5	1 595.7	3 316.4	3 865.3	2 954.6
Nanaimo	1 200.8	103.5	103.5	929.7	2 337.5	2 620.2	2 310.1
Crofton	623.2	105.0	126.0	1 010.2	1 864.4	2 495.2	2 149.7
Campbell River	812.0	209.1	420.5	452.7	1 894.3	2 487.2	2 483.6
Kitimat	1 173.3	684.8	134.2	96.3	2 088.6	2 404.8	2 275.9
Powell River	283.4	627.7	328.5	480.4	1 720.0	1 522.9	1 263.4
Port Alberni	398.8	44.0	99.9	96.4	639.1	1 235.2	1 203.7
NORTHWEST TERRITORIES	70.4	2.8	25.0	141.7	239.9	189.2	199.6
Total, all Canadian ports	144 560.7	62 011.8	60 506.2	60 506.2	327 584.9	327 523.3	342 986.4^f

13.21 Principal commodities in water-borne cargo loaded and unloaded at Canada's 10 leading ports handling large tonnage, 1986, with totals for 1985 and 1986 (thousand tonnes)

Port and commodity	International		Domestic		Total	
	Loaded	Unloaded	Loaded	Unloaded	1986	1985
Vancouver						
Coal	18 727.6	—	59.9	—	18 787.5	18 205.4
Wheat	5 948.5	—	—	—	5 948.5	6 377.4
Sulphur	5 772.3	—	—	—	5 772.3	5 372.3 ^f
Potassium chloride (muriate of potash)	3 221.1	—	—	—	3 221.1	2 839.2
Miscellaneous chemicals, n.e.s.	1 471.0	—	241.4	97.8	1 810.2	2 453.2 ^f
Lumber and timber	2 067.8	7.2	41.8	2.5	2 119.3	2 212.8
Fuel oil	528.5	58.3	1 114.6	285.0	1 986.4	1 860.2
Wood pulp	1 015.5	9.6	1.3	—	1 026.4	1 491.5
Rapeseed	1 629.6	—	—	—	1 629.6	1 473.2
Barley	2 570.4	—	—	—	2 570.4	1 358.5
Gasoline	420.2	—	553.9	—	974.1	1 242.6
Pulpwood	1 420.5	35.8	83.5	—	1 539.8	1 156.2
Petroleum and coal	66.2	8.9	0.1	—	75.2	1 134.8
Other commodities	4 967.0	2 754.2	87.0	1 882.2	9 690.4	9 060.7
Total, Vancouver	49 826.2	2 874.0	2 183.5	2 267.5	57 151.2	56 228.1
Sept-Îles-Pointe-Noire						
Iron ore, concentrates and scrap	17 448.6	23.2	3 403.2	28.2	20 903.2	20 637.0
Coal	180.8	297.1	—	81.9	559.8	696.1
Other commodities	28.1	548.0	8.7	546.2	1 131.0	999.1
Total, Sept-Îles-Pointe-Noire	17 657.5	868.3	3 411.9	656.3	22 594.0	22 332.2

13.21 Principal commodities in water-borne cargo loaded and unloaded at Canada's 10 leading ports handling large tonnage, 1986, with totals for 1985 and 1986 (thousand tonnes) (concluded)

Port and commodity	International		Domestic		Total	
	Loaded	Unloaded	Loaded	Unloaded	1986	1985
Port-Cartier						
Iron ore, concentrates and scrap	11 767.7	—	1 508.2	—	13 275.9	15 443.4
Wheat	1 493.8	75.2	—	1 401.9	2 970.9	3 607.7
Corn	177.7	82.2	—	74.3	334.2	1 538.7
Other commodities	1 129.6	566.1	6.6	1 054.5	2 756.8	1 207.8
Total, Port-Cartier	14 568.8	723.5	1 514.8	2 530.7	19 337.8	21 797.6
Montreal-Contrecoeur						
Wheat	1 559.1	0.2	—	1 794.4	3 353.7	4 254.7
Fuel oil	225.4	930.3	739.9	838.2	2 733.8	2 500.5
Crude petroleum	636.7	181.4	241.7	0.8	1 060.6	1 632.8
Miscellaneous chemicals, n.e.s.	473.8	907.2	0.4	65.5	1 446.9	1 312.7
Gasoline	1.1	576.0	154.0	418.6	1 149.7	1 198.5
Other commodities	3 554.8	5 631.1	250.8	2 092.8	11 529.5	8 287.7
Total, Montreal-Contrecoeur	6 450.9	8 226.2	1 386.8	5 210.3	21 274.2	19 186.9
Thunder Bay						
Wheat	298.8	22.5	8 649.4	—	8 970.7	10 565.1
Coal	233.5	43.6	2 037.2	—	2 314.3	2 102.3
Potassium chloride (muriate of potash)	1 331.8	—	102.2	—	1 434.0	1 703.4
Barley	11.2	—	2 542.4	—	2 553.6	726.2
Iron ore, concentrates and scrap	9.3	—	517.9	—	527.2	483.3
Flaxseed	413.6	—	6.9	—	420.5	259.3
Other commodities	615.2	22.6	460.8	368.4	1 467.0	1 516.9
Total, Thunder Bay	2 913.4	88.7	14 316.8	368.4	17 687.3	17 356.5
Halifax						
Crude petroleum	5.9	4 086.9	—	105.3	4 198.1	4 457.9
Gypsum	2 505.5	—	437.0	—	2 942.5	2 979.6
Fuel oil	166.6	376.4	1 355.0	193.4	2 091.4	22 232.2
Gasoline	12.4	33.1	636.0	178.8	860.3	977.0
Other commodities	1 741.6	1 231.7	163.8	255.9	3 393.0	3 060.0
Total, Halifax	4 432.0	5 728.1	2 591.8	733.4	13 485.3	13 697.7
Quebec City-Lévis						
Wheat	1 160.1	4.9	—	983.3	2 148.3	4 518.6
Iron ore, concentrates and scrap	555.3	516.8	—	—	1 072.1	1 785.9
Fuel oil	103.6	463.9	1 215.7	128.2	1 911.4	827.7
Other commodities	767.3	3 932.3	748.1	1 473.0	6 920.7	3 226.6
Total, Quebec City-Lévis	2 586.3	4 917.9	1 963.8	2 584.5	12 052.5	10 358.8
Hamilton						
Iron ore, concentrates and scrap	225.0	999.7	82.0	4 284.4	5 591.1	5 366.8
Coal	—	3 491.2	—	—	3 491.2	3 620.9
Other commodities	319.6	684.7	15.7	310.5	1 330.5	1 318.2
Total, Hamilton	544.6	5 175.6	97.7	4 594.9	10 412.8	10 305.9
Prince Rupert						
Coal	6 429.5	—	—	—	6 429.5	6 956.6
Wheat	—	—	—	—	—	752.1
Logs and bolts	703.7	—	264.1	39.8	1 007.6	712.7
Other commodities	2 839.9	8.6	72.2	219.9	3 140.6	1 543.8
Total, Prince Rupert	9 973.1	8.6	336.3	259.7	10 577.7	9 965.2
Nanticoke						
Coal	—	3 585.6	—	1 945.4	5 531.0	6 248.9
Iron ore, concentrates and scrap	—	1 684.4	4.0	399.5	2 087.9	1 950.0
Other commodities	60.0	3.8	264.0	79.9	407.7	513.6
Total, Nanticoke	60.0	5 273.8	268.0	2 424.8	8 026.6	8 712.5

13.22 Vessels and tonnage handled by Canada Ports Corporation, 1987

Port	Vessel arrivals		Cargo handled '000 t	Grain elevator shipments '000 t
	No.	Gross register tonnage '000		
St. John's, Nfld.	1,027	2,856	866	—
Halifax	2,054	29,258	15,791	539
Saint John, NB	1,618	18,228	13,043	218
Belledune, NB	47	477	425	—
Sept-Îles	609	13,888	19,343	—
Chicoutimi	178	466	434	—
Baie-des-Ha! Ha!	198	2,587	3,287	—
Quebec	1,416	15,589	18,320	3,660
Trois-Rivières	348	3,419	2,209	986
Montreal	2,616	31,803	21,867	2,722
Prescott	25	379	349	185
Port Colborne	71	459	93	128
Churchill	10,399	72,587	597	569
Vancouver	1,613	14,731	63,957	11,137
Prince Rupert			13,405	5,034
Total	22,219	206,727	173,986	25,178

13.23 Summary statistics of St. Lawrence Seaway traffic, 1987

Traffic, revenue and commodity	Montreal-Lake Ontario section			Welland Canal section		
	Cargo and revenue	% of total	Percentage change from 1986	Cargo and revenue	% of total	Percentage change from 1986
Cargo tonnes by toll classification						
Bulk	17 387 886	43.5	+ 2.4	20 427 881	47.8	-3.6
Grains	18 324 137	45.9	+ 12.0	19 072 346	44.6	+ 12.1
Government aid	211 044	0.5	-7.3	210 398	0.5	-7.5
Containers	42 945	0.1	-28.4	24 308	0.1	+ 5.8
General cargo	4 002 603	10.0	+ 1.3	2 989 822	7.0	-5.5
Total, cargo tonnes	39 968 615	100.0	+ 6.4	42 724 755	100.0	+ 2.7
Traffic revenue (\$) by toll classification						
Bulk	14,403,203	40.6	+ 2.8	7,682,740	25.9	+ 4.5
Grains	9,526,102	26.8	+ 12.0	7,361,180	24.8	+ 21.5
Government aid	109,636	0.3	-7.4	82,055	0.3	+ 0.2
Containers	36,356	0.1	-28.1	9,480	—	+ 14.7
General cargo	8,184,021	23.1	+ 1.4	1,883,577	6.3	+ 2.6
Gross register tonnage	3,186,952	9.0	-2.4	4,543,936	15.3	+ 10.4
Other	35,329	0.1	+ 9.1	21,862	0.1	+ 33.3
Lockage fees	—	—	—	8,091,383	27.3	+ 5.6
Total, traffic revenue	35,481,599	100.0	+ 4.2	29,676,213	100.0	+ 9.4
Gross register tonnage						
Cargo vessels	40,231,009	99.4	-2.6	51,404,985	99.4	-1.7
Non-cargo vessels	255,753	0.6	+ 38.5	288,775	0.6	+ 46.9
Total, gross register tonnage	40,486,762	100.0	-2.4	51,693,760	100.0	-1.5
Vessel transits						
Loaded cargo vessels	2,290	70.9	-0.5	2,407	61.5	-1.6
Ballast cargo vessels	657	20.4	-13.3	1,213	31.0	-4.3
Non-cargo	280	8.7	+ 12.9	294	7.5	+ 20.0
Total, vessel transits	3,227	100.0	-2.4	3,914	100.0	+ 1.1
	Tonnes	% of total	Percentage change from 1986	Tonnes	% of total	Percentage change from 1986
Agricultural products						
Wheat	12 559 195	31.4	+ 12.4	12 801 222	30.0	+ 11.6
Corn	2 117 099	5.3	+ 101.4	2 260 913	5.3	+ 101.0
Rye	34 100	0.1	-9.5	34 100	0.1	-9.5
Oats	107 251	0.3	+ 57.3	109 963	0.3	+ 61.2
Barley	1 422 006	3.6	-25.6	1 473 230	3.4	-25.7

13.23 Summary statistics of St. Lawrence Seaway traffic, 1987 (concluded)

Traffic, revenue and commodity	Tonnes	% of total	Percentage change from 1986	Tonnes	% of total	Percentage change from 1986
Agricultural products (concluded)						
Soybeans	1 104 387	2.8	-7.1	1 274 013	3.0	+0.3
Flaxseed	374 843	0.9	-6.8	374 843	0.9	-6.8
Other grains	605 551	1.5	+15.7	744 357	1.7	+12.8
Total, grains	18 324 432	45.9	+12.0	19 072 641	44.7	+12.1
Other agricultural products	129 676	0.3	-4.7	94 673	0.2	-7.2
Total, agricultural products	18 454 108	46.2	+11.9	19 167 314	44.9	+12.0
Mine products						
Iron ore	9 557 376	23.9	+19.1	6 180 641	14.5	+5.8
Coal	233 756	0.6	-61.7	5 644 283	13.2	-2.3
Coke	654 432	1.7	-24.6	822 061	1.9	-17.2
Stone, ground, crushed, or rough	231 868	0.6	-14.9	889 373	2.1	-11.6
Salt	928 559	2.3	+6.2	1 766 446	4.1	-6.2
Other mine products	1 613 149	4.0	+0.6	1 206 184	2.8	-5.1
Total, mine products	13 219 140	33.1	+7.9	16 508 988	38.6	-1.5
Processed products						
Iron and steel	3 614 403	9.1	+1.8	2 674 513	6.3	-6.2
Fuel oil	481 049	1.2	-25.0	569 051	1.3	-5.7
Other petroleum products	408 745	1.0	+19.4	261 530	0.6	-17.3
Chemicals	812 778	2.0	-6.5	627 657	1.5	-19.2
Other processed products	2 912 423	7.3	-13.3	2 892 018	6.7	-8.1
Total, processed products	8 229 398	20.6	-6.1	7 024 769	16.4	-8.7
Miscellaneous cargo						
Forest products	10 987	—	+49.0	3 785	—	+79.0
Animal products	54 982	0.1	-19.0	19 899	0.1	-38.2
Total, miscellaneous products	65 969	0.1	-12.3	23 684	0.1	-31.0
Total, all commodities	39 968 615	100.0	+6.4	42 724 755	100.0	+2.7

Sources

13.1 – 13.7, 13.9 – 13.21 Transportation Division, Statistics Canada.

13.8 Science, Technology and Capital Stock, Statistics Canada.

13.22 Canada Ports Corporation.

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CHAPTER 14

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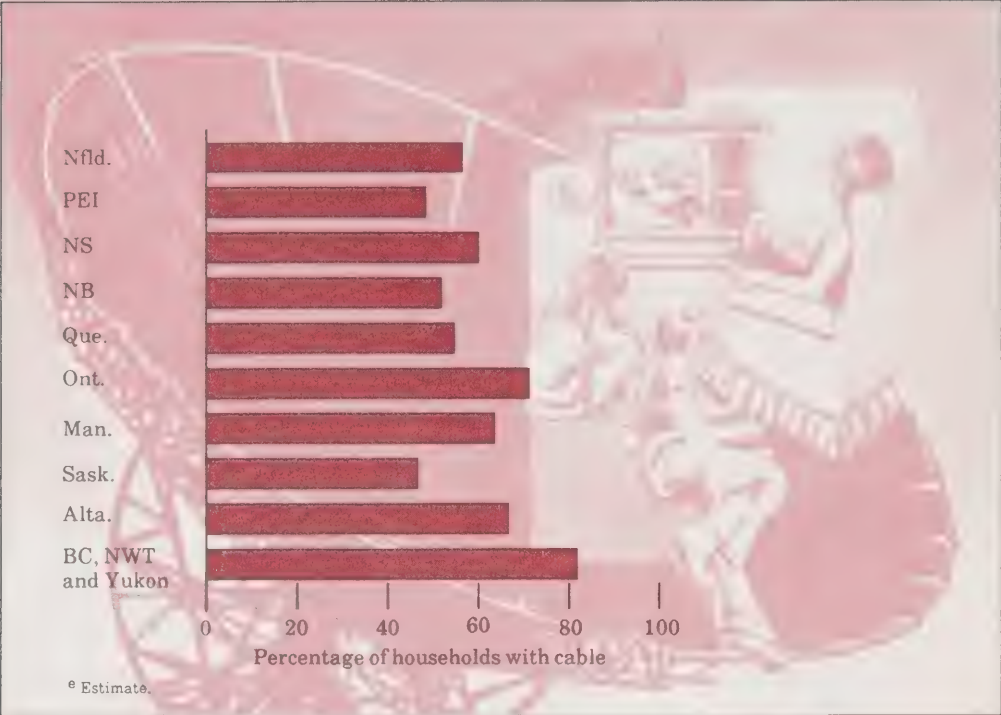
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**CABLE TELEVISION MARKET
PENETRATION, 1988^e**

By 1954, two years after TV's debut in Canada, cable television services were set up in a few select locations across the country. By 1988, cable television had spread throughout Canada and was available to an estimated 7,969,846 households.

CHAPTER 14

COMMUNICATIONS

Numerous elements in the lives of Canadians are shaped and reshaped by the remarkable progress of science and technology. Work, leisure and educational, health care and social services are all influenced by the technical revolution, a revolution propelled by the convergence of two of the most powerful technological forces in the world today: telecommunications and information technology.

New applications of combined computer/communications technologies are changing Canada's workplaces. "Information workers", who create, process, store, distribute, analyze and otherwise handle information, comprise a major portion of Canada's workforce. Automated tellers, point of sales terminals and inventory control systems have provided numerous conveniences.

Canada's strength as a world leader in telecommunications provides a solid basis for realizing countless applications of innovative technologies, and the country's excellent telecommunications system, its "electronic highway" for moving information, keeps pace with new technologies and incorporates new services as they become available.

In the current "information age", knowledge and information resources underlie economic, social and cultural prosperity — resources to be fostered and applied in solving such challenges as improving the quality and delivery of our social, educational and health care services, creating new jobs in information-related fields, and increasing the productivity of industries that face intense international competition.

14.1 Telecommunications system

The Canadian telecommunications system is composed of private and public elements operating under federal and provincial jurisdictions. It includes nine major and many smaller telephone companies, a telegraph-based company that competes with the telephone companies in everything but public telephone services, a domestic satellite carrier, an overseas carrier and hundreds of cable television companies. In addition, teletext

and datacasting services, sending information on television signals, are likely to be implemented in the near future.

On a per capita basis, Canada has the most extensive telecommunications system in the world. It stretches into virtually every community of the world's second largest country. In 1986, over 98% of Canadian homes had telephones, and more than half of these had two or more telephones. In 1986, the assets of the Canadian telephone industry totalled more than \$23 billion and its operating revenues were approximately \$11 billion.

Communications in Canada contributed 2.8% (\$10.3 billion) of the country's Gross Domestic Product (GDP) in 1986 (in constant 1981 dollars).

14.1.1 Carriers

Canada's telecommunications carriers own and operate the networks, equipment and services of the national system. While some carriers are private companies, a significant number are publicly owned. All are required, by law, to carry user calls, messages and other information at a reasonable cost without changing the content.

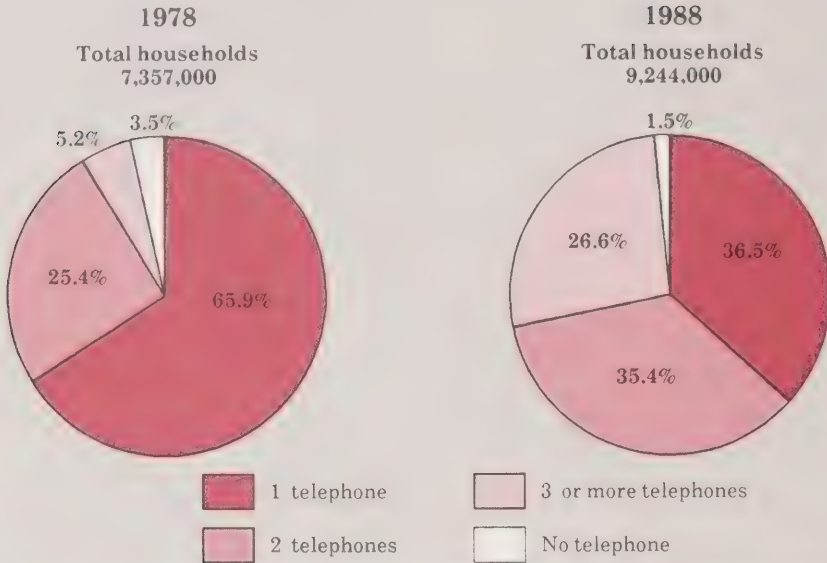
Although the majority of carriers are telephone companies, they also provide other services, including data transmission. Investment in plants, equipment and buildings owned and operated by the carriers is ongoing; a significant proportion of it is used to implement new computer and communications technologies and to modernize infrastructures.

Telecom Canada is a consortium of large carriers, linking the regional networks of 10 telecommunications companies across Canada. Six are privately owned telephone companies and three are provincially owned, by the governments of Alberta, Saskatchewan and Manitoba. The tenth member of the consortium, Telesat Canada, owns and operates Canada's satellite communications system.

CNCP Telecommunications, another major carrier, provides services other than public telephone service across Canada in competition with Telecom Canada. Teleglobe Canada is the

Chart 14.1

Households with and without telephones



country's international carrier, connecting domestic and overseas networks.

14.1.2 Telecommunications networks

New technologies are gradually transforming Canada's telecommunications infrastructure. Canada has been a leader in replacing analogue communications, in which signals travel in continuous waves, with digital communications, in which signals are transmitted in discrete pulses. Because the digital mode uses computer language in its signals, it is able to carry more information than the analogue mode. It is also less susceptible to interference. Using digital and computer technologies in telecommunications has opened the way for vast interconnectable networks and myriad new applications.

In many of Canada's carrier networks, especially where traffic is heaviest, new fibre-optic cables are replacing traditional copper cables. The new cables are able to carry more information, faster, with less signal loss, than the copper cables. They are also better adapted to certain applications, such as underwater lines, because of their high capacity at low cable diameters. Both Telecom Canada and CNCP Telecommunications are in the process of laying fibre-optic trunk-lines

which will be the backbone of two competing trans-continental networks in the 1990s, supplementary to their existing microwave radio networks.

Terrestrial systems. Three nation-spanning microwave networks form the backbone of Canada's telecommunications networks. Two of them are owned by Telecom Canada, and the third by CNCP Telecommunications. These networks consist of microwave stations spaced about 50 km apart, which relay radio signals, and amplify them along the way to compensate for normal signal loss. In general, a microwave channel can carry more than 1,200 telegraph, data or telephone signals or one television signal. The amount of traffic in a given area determines the amount of the microwave spectrum used.

14.1.3 Domestic communications satellite system

Canada's satellites serve as elevated microwave towers locked into geostationary orbit about 35 900 km above the equator. Signals beamed up to them can be relayed anywhere in Canada. In particular, they bring reliable communications to the remote corners of our country, where it has not been economical to establish a terrestrial infrastructure.

Telesat Canada, incorporated in 1969, owns and operates the domestic satellite system that supplements Canada's terrestrial microwave system. In 1972, Telesat launched Anik A1, the world's first domestic communications satellite in geostationary orbit. Anik A2, launched in 1973, and Anik A3, launched in 1975, completed the first Anik series, ensuring reliable service and supporting future service expansion.

The first commercial service to Telesat customers began in January 1973, through a network of earth stations — facilities for transmitting and receiving satellite signals. There are now hundreds of earth stations, many of them privately owned, strategically located throughout Canada.

In 1978, Telesat launched Anik B, the world's first commercial dual-band or hybrid satellite. It operated at both the 6/4 Gigahertz (GHz) frequency used for terrestrial microwave services, and at the higher 14/12 GHz band. The Department of Communications (DOC) used four of Anik B's 12 channels for experimental purposes to continue the exploration and development of new satellite communications applications, including health and educational services such as Access Alberta and the Knowledge Network in British Columbia. The 14/12 GHz band was first used commercially in 1980 to bring French-language television programming to several communities in Quebec. Anik B was retired in 1986.

The C and D series of Anik satellites, operating respectively, at the 14/12 GHz and the 6/4 GHz frequencies, are providing television, radio, data and message services to Canada at present. The next generation is being developed for use in the 1990s. The Anik E series will feature larger, higher capacity, dual-band satellites purchased from Canada's space prime contractor Spar Aerospace Limited of Toronto and Montreal.

Telesat Canada is also developing plans to offer mobile satellite communications service, MSAT, on a commercial basis by late 1992, therefore Canada could become the first country in the world with this type of service. The project was conceived by DOC to satisfy national needs for improved mobile communications in isolated and sparsely populated areas. Using a relatively small and inexpensive radio terminal, MSAT users will be able to communicate directly by satellite to virtually anywhere in the country.

Transportation, trucking, mining, exploration, forestry, agriculture, fishing, construction, manufacturing, and service industries are among those to benefit from MSAT's voice and data services. Governments will use MSAT for emergency medical services, disaster relief, resource

management, law enforcement and to assist pollution clean-up. MSAT is expected to create many new business opportunities for Canadian industry in domestic and export markets and to develop new skills in Canada's labour force.

The development of Very Small Aperture Transmitter (VSAT) network service started with the introduction of Telesat Anikom 200 service followed by CANCOM Satlink service. In addition, CNCP announced the introduction of its own VSAT system. VSAT network is a two-way point-to-multipoint satellite service, consisting of a master hub earth station, controlling a large number of small and relatively inexpensive earth stations, directly located at customer site for the purpose of carrying various telecommunications services between served sites and the controlled central processing centre. VSAT is expected to be one of the major growing satellite services in the next decade.

14.1.4 Additional telecommunications services

The application of new information technologies has enabled Canadian carriers and federal agencies to provide an increasing range of telecommunications services. The following new services have been introduced by Canadian carriers in the past few years.

iNet 2000: A service providing message store-and-forward compatibility and access to on-line data bases using the Datapac packet-switched network.

900 Service: A service permitting telephone subscribers to access recorded announcement and voting facilities in Canada and the United States.

Conference 600: A satellite-based, point-to-point, colour video conference service; now being extended through an interconnection agreement with Telelobe Canada to overseas locations, initially the United Kingdom and France.

Teletex: A high-speed text transmission service conforming to international (CCITT) standards; available on the domestic telephone and other public networks, with connections to the United States and some European countries.

Centrex III: A business service based on central office digital switching and digital transmission to multiple subscriber-premises located anywhere in a local calling area; an integrated voice/data system complementary to existing voice service.

Anikom: A family of domestic satellite services for voice, video and data applications. Inexpensive earth-station terminals are available, including VSAT.

Electronic Office Services: A message service providing computer-based features such as time rescheduling, text editing, and access to on-line data banks and telex/teletex services.

Other services include electronic message and mail services such as Telepost, Globefax, Intelpost, Envoy Post, EnvoyCourier and infotex.

14.1.5 International telecommunications

While Canadian telecommunications networks (carrying telephone, data and video signals) interconnect with United States' networks to reach the rest of North America, overseas connections by submarine cables (both copper and fibre-optic) and by satellite networks are provided by Canada's international carrier, Teleglobe Canada.

Established as a Crown corporation in 1949, Canadian Overseas Telecommunications Corporation, renamed Teleglobe Canada in 1975, operates international gateways or interconnection switching centres in Montreal, Toronto and Vancouver. Teleglobe also owns cable stations in Nova Scotia, British Columbia and Hawaii, and earth stations that tie Canada into the international satellite communications system in Nova Scotia, Quebec, Ontario and British Columbia. Teleglobe Canada is a major partner in TAT-9, the large capacity transatlantic fibre-optic cable that will connect Canada and the United States with England, France and Spain, beginning in 1991.

A temporary Teleglobe Canada earth station, installed in Calgary, Alta. in 1988, was used to transmit radio and television coverage of the Winter Olympics to countries around the world.

Teleglobe Canada is the country's official representative in international bodies such as INTELSAT and INMARSAT, which maintain and operate a highly sophisticated, globe-girdling international communications network.

Legislation for the sale of Teleglobe to the private sector was introduced in 1987; Teleglobe was sold and ceased to be a Crown corporation.

14.1.6 Telecommunications policy and regulation

Regulatory power over the Canadian telecommunications industry is split between the federal and provincial governments. Federal regulatory control is vested in the Canadian Radio-television and Telecommunications Commission (CRTC) which is responsible for regulating carriers such as Bell Canada, British Columbia Telephone and Telesat. The primary responsibility of the CRTC is to ensure that the rates charged for telecommunications services are just and reasonable and serve the public interest.

In recent years, technological and economic pressures have forced the CRTC and the federal government to deregulate many segments of the industry such as telephone sets and computer terminals. The CRTC, in conjunction with provincial governments, is currently studying the impact of introducing competition in long-distance telephone service.

14.2 The broadcasting system

Canada's broadcasting system evolved to meet the needs of a comparatively dispersed, multicultural population in a vast country. Broadcast service planners have worked to ensure adequate broadcasting services for all Canadians, including those living in the remotest reaches of the country, and to make it possible for broadcasters to offer a rich choice of excellent programming.

Early years. The first Canadian radio broadcast took place in 1919. By 1923, Canadian National Railways, which was publicly owned, began a Canadian programming radio service. This network had grown to 15 stations by 1932, when a national broadcast agency, the Canadian Radio Broadcasting Commission (CRBC), was created which took over and further developed the Canadian National Railways service. In 1936, the Crown corporation, the Canadian Broadcasting Corporation (CBC), was established by an Act of Parliament, and absorbed CRBC staff and stations. CBC built up a national radio network that reached 76% of the country's population by 1937. By 1959, it reached 97% of the population. In the early 1960s, CBC's FM radio service was established.

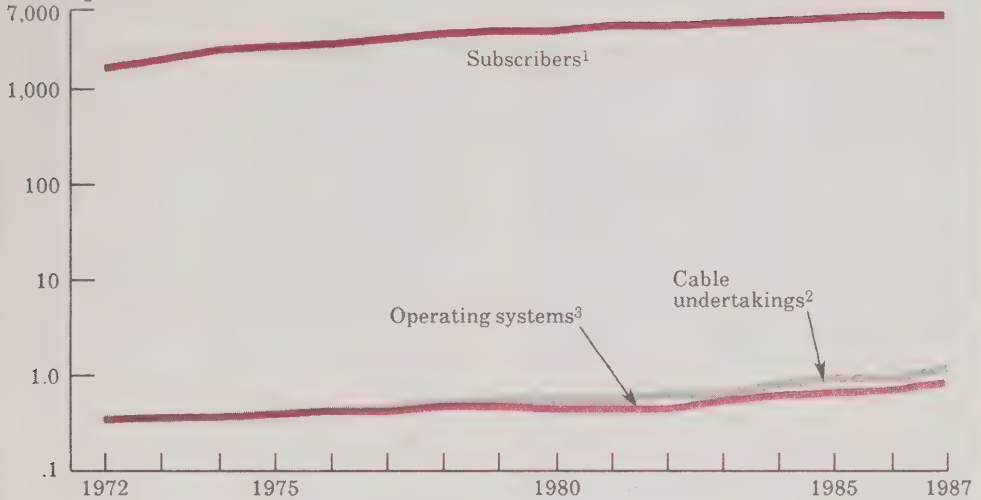
Television broadcasting made its debut in Canada in 1952. The CBC began constructing its national television network and private television stations spread across the country. In 1958, Canada's first coast-to-coast live television production travelled via the CBC's newly completed microwave network, stretching from Nova Scotia to British Columbia. Canada's first private television network, CTV, began broadcasting in 1961.

Cable television. During the very early 1950s, television and radio signals were broadcast over the airwaves from broadcaster transmitters to viewer antennas. Cable transmission technology developed rapidly and allowed operators to improve service by redistributing high-quality, reliable signals over copper wire cables. By 1954, two years after TV's debut in Canada, operators had set up cable television services in London, Guelph and Kirkland Lake in Ontario, in Grand-Mère, Asbestos, Amos and Magog in Quebec, and in Vancouver, BC.

Chart 14.2

Growth of cable television in Canada

Number in thousands
(semi-logarithmic scale)



¹ 1987 subscriber data are estimates.

² 1983 figure excludes Cancom.

³ Systems that submit an annual return.

Cable television has spread steadily throughout the country and beyond its borders. In 1986, it was available to four out of five Canadian homes, and three out of five households subscribed. The country has close to 1,000 licensed cable operators, and cable penetration in some Canadian cities has reached 89%.

A cable-TV system consists of a head end (comprised of satellite down-links, antennas for assured reception of TV signals and studio facilities) and cable passing to the homes in a given area. Service drops are used to connect a subscriber's TV set with the cable.

A major reason for the popularity of cable service is that it offers excellent reception of an ever-increasing variety of programming, including basic and specialty services. For example, some cable companies, providing 35 channels in 1986, were preparing for expansion to as many as 54 channels.

Special news and weather channels, university channels offering credit courses, parliamentary coverage, multicultural service, channels with captions or sign-language for the hearing-impaired and shopping channels are available to Canadian cable subscribers, in addition to public and private networks from Canada and the United States.

By the mid-1980s, over 270 community channel studios each produced an average of five hours per day of original programming, or, on a national basis, about 1,300 hours of programming daily. The proliferation of community channels is the result of regulations made by the federal regulatory body, the CRTC. In 1968, regulatory responsibility for the cable television industry passed from the Ministry of Transport to the Canadian Radio-Television Commission, which was renamed the Canadian Radio-television and Telecommunications Commission (CRTC) in 1976 when it was given the additional responsibility for regulating telecommunications.

Discretionary services were first licensed by the CRTC in 1982. By 1986, over 90% of Canadian cable subscribers could pay additional monthly fees to receive such services as movie channels, the MuchMusic rock video service, and The Sport Network (TSN). About one in five cable households subscribed to one or more discretionary service.

Satellite transmission. Canada also pioneered satellite distribution of television signals. Hermes, the communications technology satellite launched in 1976, was a milestone in Canadian space history. Its innovations, including telehealth, tele-education and direct broadcasting by

satellite (DBS), have had worldwide impact. Using higher frequencies and smaller receiving dishes (earth stations) than earlier satellites, Hermes delivered television signals to individual homes, particularly in previously underserved or unserved rural and remote communities.

The CBC routinely uses Telesat Canada's Anik satellites to transmit television and radio signals across Canada. Live broadcasts of special events are sent simultaneously to stations in the country's six time zones; some national news broadcasts are centrally produced and transmitted at hourly intervals to centres across the country; news stories and programs are assembled in various cities for rebroadcast by local networks. Satellite coverage of fast-breaking news stories, elections, sports and special events is possible with the portable earth stations first developed by the Department of Communications.

Educational television networks, parliamentary coverage, Pay-TV, international broadcasts and radio programming are also transmitted by Anik satellite for redistribution in communities across the nation.

In 1981, the CRTC licensed CANCOM, a Canadian broadcast satellite service, to make additional radio and television broadcasting available to Canadians living in remote areas. CANCOM distributes to smaller privately or community-owned cable systems, rebroadcasters and individual subscribers.

14.2.1 Canadian Broadcasting Corporation (CBC)

In 1929, a federal Royal Commission on broadcasting recommended the creation of a national public broadcasting system, to counter the effects of US radio and serve areas in which commercial radio was not economical. In 1936, Parliament passed the Broadcasting Act that created the CBC. The new public corporation had two responsibilities: to provide a national radio service, and to regulate all broadcasting in Canada — licensing, programs and commercial content. It was financed by licence fees, advertising and loans from the public treasury. Today, CBC's financing comes through its own revenues and through parliamentary appropriations.

There has been continuing debate in Canada over the roles of private and public broadcasting. The Board of Broadcast Governors, created to supervise the public sector in 1958, was succeeded, under the 1968 Broadcasting Act, by the CRTC, which was given overall responsibility for regulating broadcasting. Under the same Act, the CBC was required to offer a balanced service of

information, enlightenment and entertainment covering the whole range of programming in fair proportion; extend its coverage, as public funds became available, to all parts of Canada; broadcast in English and in French, serving the special needs of geographical regions and contributing to the flow and exchange of cultural and regional information and entertainment; and contribute to the development of national unity and provide a continuing expression of Canadian identity.

Facilities and coverage. By the mid-1980s, the CBC operated several national services: a French television network; an English television network; the world's first national parliamentary network; English and French AM radio and FM stereo networks; a special medium and shortwave radio service in the North; and an international shortwave and transcription service.

In 1985, the CBC owned and operated 31 television stations, and 585 television network relays and rebroadcasting transmitters. Its television programming was also carried by 31 affiliated stations, 73 affiliated rebroadcasters and 164 private or community-owned rebroadcast transmitters. Its national radio service owned and operated 68 radio stations and 584 rebroadcasters and low-power relay transmitters. The service was carried by 17 private affiliated radio stations and 57 private or community-owned rebroadcast transmitters. The CBC had production centres in Montreal (French), Toronto (English), and many other cities.

The CBC radio networks, English and French, were available to 99.3% of Canadians in 1985. The French and English television networks were available to 99.2% of Canadians.

CBC Radio presents popular and classical music, serious drama and light comedy, talk shows, analyses of politics and the arts, local news, current affairs, weather and traffic reports, and regional and network programming.

The English and French CBC television services present Canadian programming including news, current affairs, drama, sports, religion, science, children's programs, consumer information and light entertainment.

Both financially and culturally, the CBC is the major broadcaster in the country. In 1987-88, its parliamentary appropriation was \$887 million, up almost 4% over the previous year's allocation. The total CBC budget for 1987-88 was \$1.2 billion, with the balance made up by advertising (about \$300 million) and other revenues.

Northern service. CBC Northern Service provides radio and television to the Yukon and Northwest Territories. National network and northern-produced radio programs are delivered through

terrestrial and satellite networks and broadcast on local transmitters in English and in native languages.

International broadcasting. Radio Canada International (RCI), the foreign service of the CBC, was established in 1945 and broadcasts on shortwave to Eastern and Western Europe, the United States, Mexico, Central and South America, the Caribbean, Africa and the Middle East in 11 languages — Russian, Ukrainian, Polish, Czech, Slovak, Hungarian, German, Spanish, Portuguese, English and French. It also feeds weekly programs by satellite to Japan (in Japanese) and Hong Kong (in English) and supplies music and spoken word transcriptions to 800 foreign radio stations.

14.2.2 Private broadcasting

Canada can claim the first scheduled broadcast in North America — a musical program on May 20, 1920, on XWA in Montreal. It is likely that XWA, which was started by Marconi, began experimental broadcasting in 1919 and later became CFCF, was also the first radio station in North America. By 1985, there were 465 privately owned radio stations in Canada.

Revenues of private radio grew to over \$623 million in 1986 from \$579 million in 1985 and almost \$559 million in 1984. Private radio profits before taxes reached \$25 million in 1986, following a drop to \$19 million in 1985 (the figure was \$25 million in 1984). During the same period the profits before taxes of private television climbed steadily from \$167 million in 1984 to \$182 million in 1985 and \$184 million in 1986.

The trends can be partially explained by the greater dependence of radio stations upon local advertising, which brings in less revenue than national television commercials. Private radio stations also collectively employed more people and paid out more wages than the private television industry.

In addition to the private stations affiliated with the CBC, Canadian private television includes the Canada-wide CTV English-language network; Global Television, an English-language network based in Ontario; Le Réseau de Télévision Quatre Saisons, a network which made its debut in September 1986 and is based in Quebec; the TVA network, which has originating stations and several rebroadcast facilities in Quebec and one facility in the Atlantic provinces; the Atlantic Satellite Network, a regional satellite-to-cable service; and various independent stations located primarily in large metropolitan centres. Among the latter are several stations broadcasting in the languages of some of Canada's ethnic minorities.

In 1985, four Canadian provinces owned and operated educational television networks: Radio-Québec, TVOntario, Access Alberta (which also operates an educational radio network), and the Knowledge Network in British Columbia. In 1987, TVOntario started a French-language network to complement its existing service which broadcasts primarily, though not exclusively, in English.

14.3 Federal policies, programs and regulations

The Department of Communications (DOC) provides technical certification for broadcasting undertakings and regulates use of the radio frequency spectrum. It ensures that Canadians have access to a broad range of communications services at reasonable cost, and assures the orderly development and introduction of new information technologies, in light of Canada's economic, social, political and cultural concerns. The Minister of Communications is responsible to Cabinet and Parliament for the federal government's communications policies and programs.

In 1980, the government transferred the arts and culture branch of the Secretary of State Department to the Department of Communications in recognition of the increasingly close relationship that was developing between the production of cultural content and its means of distribution, particularly as new information technologies transformed the communications field.

The first economic and regional development sub-agreements in the field of communications development were signed with Manitoba in 1984 and Quebec in 1985. Private-sector technology applications, funded in Manitoba, include an automatic meter-reading system and a variety of electronic publishing and expert systems projects. The Quebec communications agreement is used primarily to top-up private-sector investment in French-language software, program development and information technology R&D and the French-language broadcasting industry.

Telecommunications and technology. DOC operates two laboratories, the Communications Research Centre (CRC) located at Shirley's Bay, Ont. and the Canadian Workplace Automation Research Centre (CWARC) located in Laval, Que. The CRC carries out research in communication devices and components, broadcast technologies, communication technologies and space technologies. CWARC is involved in all aspects of applied research in computerized office systems. It carries out research in such diverse aspects as integrated work stations, open systems

interconnection, computer-assisted translation, expert systems and knowledge management, and in organizational aspects of office automation.

Broadcasting policies and issues. DOC's cultural affairs and broadcasting sector formulates policies to keep pace with and respond to changing conditions in Canada's broadcasting environment. The broadcasting and cultural industries branch has the primary responsibility for advising the Minister on the evolution of the broadcasting system. It also deals with film, video and sound recording, as well as publishing policy and programs. This branch develops broadcasting policies, programs and legislation, shapes strategies for implementing them, and is the department's liaison with the Canadian Broadcasting Corporation and the Canadian Radio-television and Telecommunications Commission.

Canadian Broadcast Development Fund. The 1968 Broadcasting Act requires its broadcasters to provide high-quality programming that uses predominantly Canadian creative and other resources.

In response to the economic realities that Canadian producers and broadcasters face in competing with larger United States networks, the federal government established the Canadian Broadcast Program Development Fund in 1983 to encourage the production and broadcast of certain categories of quality television programs by private Canadian producers. Over the first five years of its existence (July 1983 to March 1988), this fund, which is administered by Telefilm Canada, invested approximately \$243 million in the production of 478 projects whose total budgets exceeded \$716 million.

This fund, the licensing of additional Canadian television stations during the 1970s, and the emergence of pay-television services have contributed to a surge of growth in the domestic program industry. During 1985, both public and private networks in Canada enhanced their prime-time dramatic programming. The CBC, which significantly increased its Canadian prime-time drama (using much independently produced material partially financed by Telefilm), found that it maintained or increased its audience share for these episodes. Presenting dramatic programming that is high in Canadian content, and developing an appropriate balance between "in-house" and independently produced programs are ongoing challenges for Canada's public and private broadcasters.

Increased French-language service. Although the market for French-language broadcasting is

relatively small in the North American context, and concentrated in the province of Quebec, it is flourishing. Both French- and English-language broadcasters compete for audiences and advertisers. In 1985, a joint Canada-Quebec committee addressed the overall challenges facing the future of French-language television in Canada. Subsequently, the two levels of government signed a memorandum of understanding with a view to enhancing the availability of French-language viewing opportunities and achieving a broader distribution of Canadian programs in francophone export markets.

A key initiative in this area is the new international satellite-delivered francophone service TV5, composed of programming from a number of French-speaking countries, including Canada. In September 1986, the private Quebec television network, *Télévision Quatre Saisons* made its debut. TVOntario's *La Chaîne Française*, which is financially supported by the government of Canada and the province of Quebec, began in January 1987.

Increased service to the North. Under Canada's Northern Broadcasting Policy, residents of the North are entitled to a range of viewing choices. Native-originated programming is available to them, and northern natives are to be consulted whenever governments formulate policies that will affect them.

The Northern Native Broadcast Access Program, jointly developed by the Department of Communications and the Secretary of State and administered by the latter, works through 13 native communications societies to support the production of television and radio programs by aboriginal peoples in their own languages. In 1986, over 500 hours of native-language television and 16,000 hours of radio were produced with the assistance of the program. Native residents enjoyed programming in 27 of the native languages, which total approximately 30.

Another mainstay of northern broadcasting is CANCOM, the private Canadian broadcast satellite service. In addition to delivering eight television and seven radio channels from the South to remote and under-served areas, it also offers three radio services that originate in the North, one in English and two in native languages.

Extension of other services in the 1980s. Ethnic broadcasting is assuming a greater presence within the Canadian radio and television broadcasting systems. For the hearing-impaired, sign-language reporting has been introduced into CBC news reports and into parliamentary coverage. In addition, closed captioned sub-titling is available

on an increasing number of programs with the assistance of the Department of Communications. Alphanumeric news and weather services and advertising channels are available on most cable networks.

Task force on broadcasting. In 1985, the Minister of Communications announced a fundamental review of Canada's broadcasting policy. As a first step, the government created a task force to develop recommendations for an industrial and cultural strategy to guide the evolution of the broadcasting system. It examined the roles, mandates and relationships among public and private broadcasters. The task force also assessed the role of policy instruments, such as regulation and public funding, and investigated means for reducing structural impediments to the broadcasting system's contribution to Canadian life.

The *Report of the Task Force on Broadcasting* was released in September 1986. Extensive consultations and study by the House of Commons Standing Committee on Communications and Culture followed.

14.4 Postal service

Canada Post Corporation, a federal Crown corporation, is responsible for the collection, processing and delivery of over 8 billion messages and parcels annually to more than 10 million addresses in every part of urban and rural Canada; providing reliable and accessible postal products and services at reasonable rates. Its products and services are marketed through a network of more than 15,000 outlets, more than half of which are operated by local businesses.

Canada Post employs a workforce of 61,000 full- and part-time employees; provides employment for approximately 6,000 casual workers; operates a network of 29 major mail processing plants; and operates a major fleet of more than 5,000 vehicles to move the mail. It is one of the largest users of transportation services provided by air and overland shipping operations in Canada.

In 1987, Canada Post became the first postal administration to hire an external, independent auditor to measure its service performance levels and to publish the results quarterly. Results for the last quarter of fiscal year 1988-89 showed 95% on-time delivery.

During the 1988-89 fiscal year, Canada Post Corporation reached and surpassed the break-even point financially for the first time in over 30 years.

A new corporate identity design was introduced in March 1989, signifying a new era for the corporation, and is being used throughout the

corporation on items such as letter boxes, delivery vehicles, signs and printed material. Its stylized design, depicting a mail piece in quick movement, is symbolic of the corporation's optimistic view of the future and its commitment to customer service.

14.4.1 Products and services

Canada Post provides the following basic services:

Letter mail. The basic postal service for letters, postcards, bills, receipts and similar messages.

Publishers' mailings. Second class mail, for newspapers and magazines.

Admail, direct mail. Both unaddressed and addressed, the bulk mailing of advertising material which makes direct mail marketing widely available.

Parcel post. A national distribution service for parcels between 500 g and 30 kg in weight. Parcels are either regular or expedited.

Priority post. A courier service offering next-day delivery between major Canadian centres, and linking with other countries having similar service.

Electronic mail. Telepost enables the public to send messages electronically via phone, telex, or any telegraph office for delivery by mail to any address in Canada or the United States in hard-copy form. Intelpost electronically transmits facsimiles of documents between specially equipped post offices in Canada as well as to certain overseas cities. EnvoyPost enables subscribers of the Envoy 100 service of Telecom Canada to reach any address in Canada by using the mail-delivery system.

Special services. Business reply cards, trace mail products, special letter mail, change of address, money packets, insurance, money orders, and C.O.D.

Philatelic services. Each year more than a dozen new stamps are issued by Canada Post and are sold, together with a variety of related products, by mail or from philatelic counters in post offices and other locations.

Many post offices also serve as distribution outlets for government forms, such as applications for passports, family allowances, old-age security pensions and income tax returns.

14.5 Newspapers and periodicals

14.5.1 Daily newspapers

There were 116 daily newspapers published in Canada in 1986. Combined circulation was over 5.7 million — about 82% in English and 17% in French (Table 14.8).

Daily newspaper advertising net revenue in 1986 was \$1.6 billion, up 10% from 1985. There were 11 dailies published in French, 100 in English, and five in other languages. Although the circulation of daily newspapers blankets the more populous areas well beyond publishing points, the smaller cities, towns and rural areas are also served by 942 community newspapers catering to local interests.

14.5.2 Syndicates and wire services

In addition to their news-gathering staffs and facilities, Canadian newspapers subscribe to syndicates and wire services. The largest Canadian wire service is the Canadian Press (CP), a co-operative agency owned by most Canadian dailies. CP delivers Canadian and world news by satellite and wire, to its 110 members; many of them also subscribe to Laserphoto which delivers, by satellite, more than 600 news photos a week, or to a mailed news photo service. An affiliate, Broadcast News Ltd., provides wire news by satellite and an audio service to AM and FM radio stations, to television stations, and for display by cable television companies. Another CP affiliate, Press News Ltd., serves CBC radio and television stations, community newspapers, magazines, and corporate and government clients. CP has its own news-gathering staff in 13 Canadian cities as well as in New York, Washington and London. Each member newspaper provides local news and pictures for transmission to fellow members and members share the cost in proportion to their circulations.

CP carries world news from Reuters (the British agency), from the Associated Press (the United States co-operative) and from Agence France-Presse (of France) and these agencies receive CP news on a reciprocal basis. CP maintains a French-language service in Quebec.

14.5.3 Non-daily newspapers

Canada's non-daily newspapers fared well in 1986. The average circulation of non-dailies was up 2% from the previous year and the number of non-dailies reached 1,295.

The non-dailies include shoppers, community newspapers, weekend tabloids, university and school papers and ethnic non-dailies. Shoppers are free distribution publications in a newspaper format consisting almost entirely of advertising. In 1986, there were 57 such papers in Canada, with a total distribution per issue of 1.7 million and an average distribution of 29,579 per paper, about three times the circulation of the average community newspaper. The 942 community

newspapers listed in 1986 had a total circulation of 9.7 million for an average circulation of over 10,000 per paper.

Between 1985 and 1986, the number of university and school papers remained at 169, with total circulation per issue of 2.1 million. The average circulation of weekend tabloids was also stable at 62,000 per issue.

The number of ethnic non-dailies increased from 75 in 1985 to 81 in 1986. Total average circulation per issue of the ethnic papers was up 28%.

14.5.4 Periodicals

In 1986-87, there were more than 1,300 periodicals published in Canada. Six out of 10 of these served special interests, nearly one-third were general interest magazines and the remainder were scholarly periodicals.

Although single copy sales were down by over 20% from the previous year, advertising, subscription and other revenues were all up, leading to a small increase in profit margins.

The total estimated revenue of the periodicals in 1986-87 was \$725 million; advertising accounted for 64% of this total. Nearly 1,000 publishers were involved in producing the periodicals. Of these, 134 published more than one periodical.

The total circulation per issue was over 35 million copies. General interest periodicals were responsible for 63% of total circulation per issue. Annual circulation was about 420 million copies; Canada Post delivered 71%.

14.5.5 Ethnic serials project

A Canadian ethnic serials project at the National Library of Canada contributes to the federal government's multicultural program. In 1973, the National Library undertook to collect all serial publications of Canada's cultural communities. All known Canadian ethnic newspapers were ordered on subscription; all Canadian periodicals, including ethnic, have deposited two copies of each publication in the National Library since 1969 as required by law. Since the beginning and terminating rates of the Canadian ethnic serial publications are quite high, the ethnic serials project is an ongoing process which identifies and acquires all new newspaper and periodical titles. The collection of about 1,800 titles is the largest in Canada.

This program preserves and makes available to researchers material that would otherwise be lost or difficult to obtain. An ethnic serials specialist is on staff in the reference and information services division to provide a reference and consulting service to researchers.

Periodicals and newspapers on microfilm in the National Library collection are available to researchers on interlibrary loan; original newspapers must be consulted in the library.

Checklist of Canadian ethnic serials was published by the National Library in May 1981, listing all known Canadian ethnic serial publications.

14.6 Native communications program

This program provides core-funding to 15 native communications organizations established to serve the varied media needs of native people in designated regions of the country. Most of the societies supported under this program publish newspapers; others provide maintenance to native community radio stations, produce radio and video programs, provide translation services, and

support point-to-point survival communications through high frequency and single band radio systems.

The northern native broadcast access program, established in 1983, provides support to 13 northern native broadcasting centres to produce regional radio and television programs in the native languages of the region. The programs are then available on existing broadcasting services in the North, such as CBC or TVOntario. Announced with the government's northern broadcasting policy, the program seeks to offset the effects of satellite-delivered TV to the isolated North with programming that is culturally relevant and which will have a significant impact on the survival of approximately 30 northern native dialects. Thirteen broadcasters are presently producing 23 hours per week of regional radio. Seven native broadcasters are producing 12 hours per week of regional television programs.

Sources

- 14.1 – 14.3 Information Services, Department of Communications.
- 14.3 Telefilm Canada.
- 14.4 Public Affairs, Canada Post Corporation.
- 14.5 – 14.5.1, 14.5.3 – 14.5.4 Education, Culture and Tourism Division, Statistics Canada.
- 14.5.2 The Canadian Press.
- 14.5.5 Reference and Information Services, Public Services Branch, National Library of Canada.
- 14.6 Communications Branch, Department of the Secretary of State.

FOR FURTHER READING

Selected publications from Statistics Canada

- Telecommunications Statistics, annual. 56-201
- Telephone Statistics, annual. 56-203
- Radio and Television Broadcasting, annual. 56-204
- Cable Television, annual. 56-205

More information about these publications is available from Statistics Canada. See Appendix F for a complete list of Statistics Canada offices.

TABLES

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- certain tables may not add due to rounding

14.1 Financial statistics of telephone systems, 1978-86 (thousand dollars)

Year	Capital stock ¹	Long-term debt	Cost of plant	Revenue	Expenses	Construction expenditures
1978	3,194,762	6,322,293	16,029,966	4,583,388	4,112,297	1,901,495
1979	3,564,875	6,606,879	17,754,852	5,339,842	4,786,338	2,132,536
1980	3,856,627	7,265,766	19,742,479	6,178,449	5,612,657	2,509,332
1981	4,119,477	8,015,933	22,297,545	7,379,725	6,715,815	2,853,237
1982	4,573,267	8,683,638	24,467,219	8,323,592	7,674,489	2,860,006
1983	4,742,311	8,720,519	25,917,340	8,970,329	8,135,243	2,229,790
1984	4,879,469	8,611,616	27,307,157	9,695,881	8,748,234	2,403,501
1985	4,957,576	8,816,665	28,483,935	10,334,900	9,306,859	2,554,770
1986	5,339,718	9,047,073	29,986,087	11,029,738	9,949,213	2,860,062

¹ Includes premium on capital stock.

14.2 Financial statistics of telephone systems, by province, 1984-86

Year and province	Capital stock ¹ \$'000	Cost of plant \$'000	Revenue \$'000	Expenses \$'000	Full-time employees	Salaries and wages ² \$'000
1984						
Newfoundland	142,376	531,715	167,561	145,107	1,647	42,296
Prince Edward Island	20,383	96,161	30,804	26,588	305	8,080
Nova Scotia	143,440	835,584	277,393	243,464	3,434	92,498
New Brunswick	115,150	642,362	232,562	203,647	2,434	67,094
Quebec ³	3,424,124	15,014,363	5,537,952	4,882,183	53,084 ⁴	1,796,134 ⁴
Ontario	114,344	283,959	100,136	72,560	...	...
Manitoba	—	1,083,152	335,244	320,264	4,110	127,797
Saskatchewan	2,928	1,176,682	387,638	352,026	4,525	138,551
Alberta	—	3,748,283	1,224,524	1,210,633	12,917	420,775
British Columbia ⁵	916,724	3,894,896	1,402,067	1,291,762	14,146	468,481
Total	4,879,469	27,307,157	9,695,881	8,748,234	96,602	3,161,706
1985						
Newfoundland	147,530	577,014	181,229	157,939	1,672	36,292
Prince Edward Island	21,160	107,531	33,325	28,902	293	8,865
Nova Scotia	152,615	921,084	305,056	270,956	3,569	105,010
New Brunswick	121,315	682,675	246,559	218,826	2,360	72,822
Quebec ³	3,555,325	15,950,927	5,955,419	5,259,662	50,789 ⁴	1,801,879 ⁴
Ontario	122,148	305,207	109,161	78,242	...	...
Manitoba	—	1,212,855	361,132	352,616	4,144	135,562
Saskatchewan	2,944	1,244,178	428,310	391,299	4,552	147,919
Alberta	—	3,614,340	1,307,530	1,258,499	12,638	436,746
British Columbia ⁵	834,539	3,868,124	1,407,179	1,289,918	14,117	468,033
Total	4,957,576	28,483,935	10,334,900	9,306,859	94,134	3,213,128
1986						
Newfoundland	155,139	622,310	194,974	171,719	1,699	52,850
Prince Edward Island	22,845	120,769	36,456	31,870	298	9,785
Nova Scotia	157,906	1,014,945	335,534	299,887	3,618	114,483
New Brunswick	120,208	721,059	262,278	232,699	2,411	76,984
Quebec ³	3,850,522	16,753,620	6,377,417	5,644,472	49,962 ⁴	1,888,423 ⁴
Ontario	127,633	333,083	114,027	82,888	...	...
Manitoba	—	1,328,564	390,430	401,018	4,223	147,129
Saskatchewan	765	1,301,901	455,367	418,810	4,649	161,418
Alberta	—	3,737,618	1,361,439	1,295,795	12,560	449,569
British Columbia ⁵	904,700	4,052,218	1,501,816	1,370,055	12,251	486,770
Total	5,339,718	29,986,087	11,029,738	9,949,213	91,671	3,387,411

¹ Includes premium on capital stock.

² Full-time and part-time.

³ Includes data of Bell Canada which operates in Quebec, Ontario and Northwest Territories.

⁴ Ontario and Quebec combined.

⁵ Includes data of CN Telecommunications for Yukon and Northwest Territories.

14.3 Trends in the Canadian telephone industry, 1978-86

Year	Number of systems reporting	Number of employees ¹	Salary and wage payments ² \$'000,000	Telephones in use (company-owned)			
				Business '000	Residential '000	Total '000	Per 100 population
1978	260	92,873	1,630.1	4,528	10,644	15,172	64
1979	223	96,539	1,871.8	4,761	11,078	15,839	67
1980	183	100,059	2,182.0	5,022	11,509	16,531	69
1981	153	102,625	2,563.5	5,193	11,751	16,944	70
1982	120	105,061	2,882.6	5,044	11,758	16,802	68
1983	119	100,576	3,001.4	4,885	11,746	16,631	66
1984	112	96,602	3,161.7	4,735	11,745	16,480	65
1985	106	94,134	3,213.1	4,637	11,338	15,975	63
1986	75	91,671	3,387.4	3,247 ³	9,701 ³	12,948 ³	50 ³

¹ Full-time employees only.² Full-time and part-time employees.³ Access lines.

14.4 Network access lines in service, by province, and by type of service and per 100 population, 1985 and 1986

Type of line	Newfoundland		Prince Edward Island		Nova Scotia		New Brunswick		Quebec	
	1985	1986	1985	1986	1985	1986	1985	1986	1985	1986
Individual lines										
Residence	149,546	154,180	29,619	31,093	261,844	271,791	194,976	201,352	2,292,933	2,384,324
Business	25,743	27,113	4,101	4,476	29,782	32,609	73,655	84,738	416,230	447,421
Two-party lines										
Residence	6,047	4,766	61	55	846	754	3,310	2,966	95,093	84,893
Business	460	387	2	2	165	163	123	105	1,469	1,244
Four-party lines										
Residence	140	14	12,291	12,000	38,388	36,518	32,020	32,121	72,472	85,526
Business	16	101	239	239	1,203	1,122	839	851	2,037	2,227
More than four-party lines										
Residence	9	—	—	—	47	47	1,058	574	20,728	—
Business	—	8	—	—	—	—	28	22	449	—
Business lines										
WATS ¹	227	299	1	—	1,193	1,272	1,870	1,960	..	..
Coin	2,526	2,620	580	622	4,461	4,669	3,660	..	..	..
Mobile	842	873	—	—	—	—	3,880	..	..	..
Sub-total, main access lines	185,556	190,361	46,894	48,487	337,929	348,945	315,419	..	..	..
Centrex business	7,751	9,334	2,972	3,216	20,805	24,019	1,090	..	..	..
PBX ²										
Residence	—	—	—	—	—	—	—	—	16	16
Business	3,277	3,263	2,808	2,975	26,864	27,663	1,122	..	65,976	69,289
Other	316	295	142	—	141	126	—	..	4,010	5,254
Total, access lines	196,900	203,253	52,816	54,678	385,739	400,753	317,631	334,500	3,174,238	3,296,084
Total, access lines per 100 population	33.9	35.1	41.3	42.7	43.7	45.2	44.1	46.4	48.0	49.5
	Ontario		Manitoba		Saskatchewan		Alberta			
	1985	1986	1985	1986	1985	1986	1985	1986	1985	1986
Individual lines										
Residence	3,151,082	3,273,678	352,562	362,146	298,749	307,668	767,019	824,710		
Business	670,573	728,800	52,751	54,624	101,764	107,302	245,064	201,587		
Two-party lines										
Residence	149,579	133,571	1,047	851	2	—	—	—		
Business	1,484	1,325	—	—	1	—	—	—		562
Four-party lines										
Residence	132,878	130,988	—	—	1,555	404	96,290	97,354		
Business	3,148	3,110	—	—	13	3	5,795	5,883		
More than four-party lines										
Residence	2,700	378	44,979	44,311	66,451	63,377	—	—		
Business	138	54	2,485	2,500	3,238	3,216	—	172		

14.4 Network access lines in service, by province, and by type of service and per 100 population, 1985 and 1986 (concluded)

Type of line	Ontario		Manitoba		Saskatchewan		Alberta	
	1985	1986	1985	1986	1985	1986	1985	1986
Business lines								
WATS ¹	..	..	—	—	1,911	2,254	5,790	6,978
Coin	..	..	5,048	5,300	4,476	4,850	15,197	15,501
Mobile	..	..	439	457	2,926	3,276	31,838	31,787
Sub-total, main access lines	..	..	459,311	470,189	481,086	492,350	1,166,993	1,184,534
Centrex business	..	..	14,691	10,397	19,967	21,247	36,311	40,807
PBX ²								
Residence	35	35	—	—	—	—	—	—
Business	119,897	126,739	43,400	46,228	9,420	9,502	45,604	44,666
Other	13,693	18,719	—	—	—	—	—	—
Total, access lines	4,507,647	4,715,136	517,402	526,814	510,473	523,099	1,248,908	1,270,007
Total, access lines per 100 population	49.3	50.8	48.1	48.7	50.1	51.2	52.6	53.2
	British Columbia		Yukon		Northwest Territories		Canada	
	1985	1986	1985	1986	1985	1986	1985	1986
Individual lines								
Residence	975,385	1,014,944	5,705	6,283	10,950	11,202	8,490,370	8,843,371
Business	219,705	233,568	3,259	3,559	6,097	6,442	1,848,724	1,932,239
Two-party lines								
Residence	71,804	64,658	189	160	6	9	324,984	292,683
Business	2	—	27	25	6	4	3,733	3,817
Four-party lines								
Residence	60,962	58,187	—	143	—	33	446,996	453,288
Business	1,983	1,855	—	52	—	2	15,273	15,495
More than four-party lines								
Residence	1,579	1,094	165	—	31	—	137,747	109,781
Business	89	78	57	—	3	—	6,487	6,050
Business lines								
WATS ¹	5,177	6,822	—	—	—	..	..	..
Coin	14,985	15,955	213	278	..	..	..	..
Mobile	17,060	16,452	1,049	1,122	..	..	..	..
Sub-total, main access lines	1,368,731	1,413,613	10,664	11,622	..	..	..	..
Centrex business	27,977	34,064	956	1,168	..	..	..	..
PBX ²								
Residence	—	—	—	—	—	—	51	51
Business	37,631	37,730	368	347	..	585	356,925	..
Other	101,542	103,195	—	—	—	2	119,846	..
Total, access lines	1,535,881	1,588,602	11,988	13,137	21,043	21,978	12,480,666	12,948,041
Total, access lines per 100 population	53.0	54.3	52.8	55.7	41.3	43.9	48.9	50.3

¹ Wide area telephone service lines.

² Private branch exchanges.

14.5 Local and long-distance calls, calls per capita and average calls per telephone¹, 1978-86

Year	Local calls '000	Long-distance calls '000	Total calls '000	Calls per capita	Average calls per telephone		
					Local	Long-distance	Total
1978	22,986,788	1,082,619	24,069,407	1,020	1,515	71	1,586
1979	23,885,752	1,210,771	25,096,523	1,054	1,508	76	1,584
1980	25,501,063	1,340,263	26,841,326	1,114	1,543	81	1,624
1981	27,186,415	1,452,979	28,639,394	1,176	1,605	86	1,691
1982	27,554,131	1,475,376	29,029,507	1,173	1,640	88	1,728
1983	28,943,875	1,541,277	30,485,152	1,219	1,740	93	1,833
1984	31,204,784	1,640,932	32,845,716	1,300	1,894	100	1,994
1985	32,926,313	1,792,434	34,718,747	1,361	2,061	112	2,173
1986	34,672,867	1,959,151	36,632,018	1,423	2,678 ¹	151 ¹	2,829 ¹

¹ Calls per access line.**14.6 Operating and financial summary of the radio and television broadcasting industry, 1983-86 (thousand dollars)**

Item	Private stations		CBC	Private stations		CBC
	Radio	Television		Radio	Television	
	1983			1984		
Operating revenue						
Revenue from sale of air time	479,488	711,346	123,675	544,318	816,612	154,096
Local time sales	352,723	173,939	11,634	398,674	194,344	13,614
National time sales	125,120	419,507	53,760	144,152	474,447	72,798
Network time sales	1,645	117,900	58,281	1,493	147,821	67,684
Production and other revenue						
Syndication revenue	501	11,269	—	51	15,061	—
Production revenue	5,672	55,646	—	6,759	55,350	—
Other revenue	6,446	8,172	7,031	7,551	12,589	7,012
Total, operating revenue	492,107	786,432	130,706	558,679	899,612	161,108
Departmental expenses						
Program	159,904	351,795	480,386	174,041	411,060	534,578
Technical	23,041	45,450	170,293	25,177	52,976	188,708
Sales and promotion	106,425	70,038	26,089	124,182	79,745	30,223
Administration and general	148,830	121,396	157,551	166,228	135,809	184,182
Total, departmental expenses	438,200	588,678	834,319	489,629	679,590	937,691
Depreciation	17,752	26,347	38,116	19,264	30,004	39,567
Interest expense	22,650	34,261	—	23,936	34,434	—
Other adjustments - income (expense)	3,016	11,380	6,530	-448	11,149	6,460
Net profit (loss) before income taxes	16,520	148,527	...	25,402	166,735	...
Net cost of CBC operations	...	...	735,199	...	...	809,690
Salaries and other staff benefits	230,708	212,785	511,226	257,961	241,255	545,099
Average number of employees	9,666	6,895	12,334	10,025	7,215	12,473
	1985			1986		
Operating revenue						
Revenue from sale of air time	565,548	884,770	162,431	611,399	924,183	171,277
Local time sales	426,295	208,139	14,496	466,086	232,397	14,921
National time sales	138,707	519,512	79,271	144,305	532,811	77,266
Network time sales	546	157,119	68,664	1,008	158,976	79,090
Production and other revenue						
Syndication revenue	157	14,781	—	421	18,549	—
Production revenue	7,497	50,831	—	7,926	46,775	—
Other revenue	6,196	10,559	7,148	2,951	18,786	19,156
Total, operating revenue	579,398	960,941	169,579	622,698	1,008,293	190,433

14.6 Operating and financial summary of the radio and television broadcasting industry, 1983-86 (thousand dollars) (concluded)

Item	Private stations		CBC	Private stations		CBC
	Radio	Television		Radio	Television	
	1985			1986		
Departmental expenses						
Program	182,457	438,338	575,086	193,922	488,521	391,657
Technical	26,800	60,236	205,707	26,402	54,403	291,125
Sales and promotion	135,509	85,881	34,875	146,451	92,954	31,320
Administration and general	170,524	143,818	213,524	178,518	148,825	310,461
Total, departmental expenses	515,291	728,273	1,029,192	545,293	784,704	1,024,563
Depreciation	19,830	32,420	46,284	22,421	34,853	47,304
Interest expense	23,871	36,242	—	31,122	29,269	—
Other adjustments – income (expense)	-1,485	18,132	8,436	1,269	24,626	10,894
Net profit (loss) before income taxes	18,922	182,138	...	25,131	184,093	...
Net cost of CBC operations	...	...	897,461	...	...	870,540
Salaries and other staff benefits	270,845	267,608	589,513	292,118	287,493	573,073
Average number of employees	9,918	7,424	12,075	10,094	7,554	11,612

14.7 Operating and financial summary of the cable television industry, 1983-86

Item	1983	1984	1985 ^T	1986
Operating revenue (\$'000)				
Direct subscribers	470,263	520,922	594,065	681,044
Indirect subscribers (apartments)	36,060	40,514	41,278	45,959
Installation (including reconnect)	27,082	30,449	33,329	36,340
Education services	1	—	—	—
Other	1,434	3,172	3,464	3,696
Total, operating revenue	534,840	595,057	672,136	767,039
Operating expenses (\$'000)				
Program	36,423	38,237	41,619	44,346
Technical	143,288	162,610	179,673	205,245
Sales and promotion	15,987	19,055	22,783	28,155
Administrative and general	129,457	147,899	162,189	180,523
Depreciation	81,694	91,564	101,488	110,147
Interest expense	66,947	68,342	73,284	69,005
Other adjustments – addition to (or deduction from) income	3,634	2,819	2,080	11,229
Total, operating expenses	470,168 ^T	524,887	578,957	626,192
Net profit (loss) before income taxes	64,672 ^T	70,170	93,179	140,847
Salaries and other staff benefits	149,614	171,284	193,930	207,363
Number of employees, weekly average	6,484	6,866	7,255	7,523
Number of subscribers ('000)				
Individual	4,439	4,668	4,970	5,309
Indirect (contract with apartment building owner)	702	721	703	696
Total, subscribers	5,140	5,390	5,673	6,005
Number of households served ('000)				
Households in licensed area (including apartments)	7,109	7,397	7,710	7,988
Households offered service (cable passes by building)	6,848	7,101	7,367	7,686
Households in multiple dwellings, offered service (apartments)	1,900	2,003	2,042	2,112

14.8 Daily newspapers, number and circulation, 1978-86

Year	English		French		Other		Total	
	Number	Average daily circulation '000	Number	Average daily circulation '000	Number	Average daily circulation '000	Number	Average daily circulation '000
1978	108	4,351	12	1,092	7	91	127	5,534
1979	109	4,367	11	940	6	46	126	5,354
1980	107	4,403	11	979	5	42	123	5,425
1981	106	4,608	11	980	3	38	120	5,624
1982	108	4,577	10	985	2	7	120	5,570
1983	106	4,580	10	964	2	15	118	5,559
1984	101	4,551	11	987	5	28	117	5,566
1985	99	4,653	11	987	5	28	115	5,667
1986	100	4,719	11	1,001	5	28	116	5,747

14.9 Number and circulation of non-daily newspapers, 1984-86

Type	Number			Total circulation ('000)			Average circulation per issue		
	1984	1985	1986	1984	1985	1986	1984	1985	1986
Community newspapers	894	929	942	9,010	9,468	9,749	10,078	10,192	10,349
University and school papers	175	169	169	1,882	2,062	2,079	10,754	12,201	12,302
Ethnic non-dailies	76	75	81	856	846	1,082	11,263	11,280	13,358
Shoppers	69	57	57	1,908	1,672	1,686	27,652	29,333	29,579
Weekend tabloids	11	10	10	724	617	620	65,818	61,700	62,000
Armed Forces newspapers	12	13	13	48	49	50	4,000	3,769	3,846
Specialized newspapers	10	9	8	447	370	367	44,700	41,111	45,875
Supplements	18	15	15	690	588	621	38,333	39,200	41,400
Total	1,265	1,277	1,295	15,567	15,672	16,255	12,306	12,273	12,552

14.10 Periodical circulation trends, 1984-86

Type	Number			Total circulation ('000)			Average circulation per issue		
	1984	1985	1986	1984	1985	1986	1984	1985	1986
General interest	481	486	397	24,601	26,503	22,261	51,146	54,533	56,073
Special interest	537	686	794	8,718	10,814	12,647	16,235	15,764	15,928
Scholarly	133	141	134	181	177	239	1,361	1,255	9,866
Total	1,151	1,313	1,325	33,500	37,494	35,147	29,105	28,556	26,526

Sources

14.1 - 14.7 Services Division, Statistics Canada.

14.8 - 14.10 Education, Culture and Tourism Division, Statistics Canada.

CHAPTER 15

**CULTURAL ACTIVITIES
AND LEISURE**

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CANADIAN TRAVEL TO COUNTRIES, 1988 (USA EXCLUDED)

By region of destination

For most of this decade, close to half of the overnight trips by Canadians to countries other than the US were to Europe. Bermuda and the Caribbean were the second most popular destinations, accounting for one in five trips.

In 1988, Canadian residents made a record 2.8 million trips to countries other than the United States; this was up 90% from a low of 1.5 million trips in 1981.

1988 data mapped by continent

Map produced by the Geocartographics Division, Statistics Canada.

CHAPTER 15

CULTURAL ACTIVITIES AND LEISURE

15.1 Changes in cultural growth

Cultural activities, including attendance at movies and live performances, listening to radio, records and tapes, reading books and periodicals, watching television, and pursuing arts and crafts, now absorb more hours in a Canadian's day than any other non-work activity except sleep.

Culture plays a significant role in Canada's economy, providing jobs and contributing to national income and growth. In 1985, the cultural labour force was estimated at 307,000. The cultural sector is the fourth largest employer in Canada — three times larger than the forestry sector and equal to the agricultural sector. Cultural revenues totalled about \$10 billion, placing the cultural industries on a par with the metals and mining industry. The cultural industries' direct and indirect effect on Canada's economy is estimated between \$15 billion and \$20 billion.

While the cultural sector is healthy in many respects, certain components require support in order to ensure outlets for distinctive Canadian talent. In acknowledgement of this, the federal government announced, in 1988, the allocation of \$200 million, over five years, to assist the Canadian film industry and a further \$250 million, over four years, to support Canadian broadcasting.

15.1.1 Federal policies for the arts

The Minister of Communications has been responsible for the government's cultural and artistic initiatives since 1980. In that year, the government transferred responsibility for all federal policies and programs related to arts and culture from the Secretary of State to the Minister of Communications. This was done in recognition of the important link between communications and culture. It ensures that communications policy is formulated with full regard for the cultural implications of communications technologies and that the cultural milieu benefits from technological advances.

The Minister of Communications reports to Parliament on behalf of Canadian cultural boards and agencies, including the Canada Council, the

Canadian Cultural Property Export Review Board, the Canadian Radio-television and Telecommunications Commission, Telefilm Canada, the National Arts Centre, the National Film Board, the National Library of Canada, the National Museums, the National Archives of Canada and the Canadian Broadcasting Corporation.

The Department of Communications develops and administers legislation, policies and programs related to the arts, culture and heritage. Its objective is to foster the creation, production, distribution, marketing, use and preservation of Canadian cultural products, objects and activities. Its work addresses the needs of performing and visual artists, artists' representatives, presenters and facility managers, crafts people, arts organizations, museums, archives and libraries. In 1986, federal and provincial governments began a joint study of the economic importance of the arts.

Support for arts and artists. The government has taken a number of steps to improve the economic situation of artists and arts organizations. In 1986, task forces examined artists' training and educational opportunities, taxation, employment mobility, professional and trade union affiliations, and access to government programs and services. These reviews were supplemented, in 1986, by a government-commissioned study of proposals put forward by the artistic community during the 1986 Canadian Conference of the Arts. In addition, to ensure a balanced perspective, the Bovey Commission was appointed to investigate broader issues associated with arts funding. This task force, which released its report *Funding of the Arts in Canada to the Year 2000* in June 1986, framed its recommendations within the context of how other countries handle arts funding issues. In early 1987, the Minister of Communications announced the appointment of a seven-member Canadian Advisory Committee on the Status of the Artist.

Book publishing. In 1985, the government announced a new policy designed to encourage Canadian presence in an increasingly foreign-owned publishing industry. Citing the importance

of a strong book publishing and distribution industry owned and controlled by Canadians, the government gave notice that it would review, under the Investment Canada Act, all proposed foreign investment in book publishing, whether direct or indirect, and it would favour proposals for new businesses where investment is made through joint ventures with Canadian control. Acquisitions by foreign-controlled businesses are possible only if control is divested to Canadians within two years at a fair market price. (See Section 15.6.1 for additional book publishing information.)

In 1986, the government announced a new set of direct financial support measures for the Canadian-controlled sector of the industry. These measures provide both cultural and industrial support, including a new Book Publishing Industry Development Program to enhance the viability of individual firms and increased funding for the Canada Council to support the publication of culturally significant titles which cannot be entirely financed by the marketplace. The total budget for these measures is \$13 million a year over five years. In the same year, the government established a \$3 million-per-year Public Lending Right Commission (PLR) within the Canada Council, responding to a long-standing request from Canadian writers to be compensated for use of their works in libraries. In 1987-88 Public Lending Rights were increased to \$3.8 million per year.

Sound recording. Canadians are among the world's highest per capita consumers of recordings and audio-cassettes. Sound recording is one of the most important cultural industries in Canada. In the mid-80s, the government took a major step to increase the production of records by Canadians. In response to the industry's concerns about production, marketing, distribution and development, the government designated a \$25 million, five-year development strategy. Approximately 60% will help the English-language sector and 40% will assist French-language recordings.

Film. The December 1985 report of the government's federal Task Force on the Film Industry analyzed the structural handicaps facing Canadian film producers and distributors. In 1986, the government announced a five-year program administered by Telefilm Canada to provide \$30 million annually for feature-film production and distribution and an additional \$3 million a year for dubbing or subtitling. The money will help the Canadian feature-film industry produce films and videos for exhibition in Canadian cinemas.

The Versioning Assistance Program provides financial support for dubbing and subtitling, to

increase the exchange of film and video productions between English and French Canada. This will lead to greater awareness of our film and video heritage, provide quicker access for French-speaking Canadians to productions and programming in their own language, and increase the number of Canadian films and videos available to television following theatrical release. Telefilm Canada administers the program.

In 1988, the federal government provided an additional \$200 million, over five years, to assist the Canadian film industry, including \$85 million for the establishment of a Film Distribution Fund, \$57 million added to the Feature Film Fund, \$15 million for the Versioning Assistance Program, \$25 million to the National Film Board for co-productions, \$10 million for non-theatrical film and video productions (to be administered by the Department of Supply and Services), \$3 million to the Canada Councils' Media Arts Section and \$5 million to establish a Film Products Importation Office in the Department of Communications.

The government also provides tax incentives to stimulate film and videotape production. The Department of Communications administers a 100% capital cost allowance, a tax deferral scheme, with about \$150 million invested in 1985 in Canadian film and videotape production. In January 1986, regulations for this program were altered to ensure greater conformity to the Canadian content regulations of the CRTC.

Copyright protection, which was governed by the Copyright Act (RSC 1970, c.C-30), in force since 1924, has been significantly revised with a new Copyright Act, enacted in 1988. Protection is automatic without any formality, but a system of voluntary registration is provided by Consumer and Corporate Affairs Canada. Copyright exists in Canada in every original literary, dramatic, musical and artistic work and in contrivances by means of which sounds may be mechanically reproduced. The term for which the copyright exists is, except as otherwise expressly provided by this Act, the life of the author and a period of 50 years after death.

The new law has made changes in several different areas: explicit protection is provided to computer programs; criminal sanctions against pirating of works protected by copyright is greatly increased; the relationship between industrial design and copyright protection is clarified; the collective exercise of copyright under the regulation of a new Copyright Board is encouraged; moral rights, which protect the honour and reputation of creators, are strengthened; explicit protection

for works of choreography is provided; the compulsory licence for the manufacturing of records is abolished; and a new exhibition right is provided to visual artists whose works are displayed at public exhibitions.

Economic and Regional Development Agreements. A relatively recent development in Canadian arts policy has been to include development projects related to artistic or cultural endeavours in federal-provincial Economic Regional Development Agreements (ERDAs). The Department of Communications signed the first culture and communications sub-agreement with Manitoba in 1984 which provided \$21 million (\$13 million in federal contributions) to strengthen development of the province's communications and cultural enterprises. Similar sub-agreements in support of cultural activities have been concluded with Quebec, where \$40 million (\$20 million in federal contributions) has been allocated to support such cultural infrastructures as the Montreal Museum of Fine Arts and a Film Production Centre; and with Ontario, where \$50 million (\$25 million in federal contributions) has been allocated to support the Royal Ontario Museum, Elgin Winter Garden Theatre, TVOntario and the Tom Thomson Memorial Art Gallery projects.

15.2 The performing arts

Performing arts, including theatre, music, dance and opera, share the collective entertainment market mainly with movies and sporting events. The appearance of television in the 1950s and its rapid growth was first seen as formidable competition for the stage. There was fear that TV entertainment at home would cut deeply into attendance at the performing arts. But, following the period of the appearance of television, instead of a decline of interest, there has been a general upsurge in all the performing arts.

The number of performing arts organizations fluctuates constantly. There are always organizations folding or coming into being. Data on 298 organizations collected by Statistics Canada for 1986 include most of the major professional companies. For this annual survey, the organizations included 180 theatre companies, 64 music organizations, 42 dance companies and 12 opera companies.

During 1986, the 298 companies gave almost 36,000 performances to combined audiences of 12.2 million. The revenues earned amounted to \$120 million.

Grants from all levels of government and donations from the private sector totalled \$118 million.

Government grants accounted for 34% of all revenue for theatre companies, 32% for opera companies, 37% for music organizations and 45% for dance groups. In descending order, the principal contributors were the federal government, provincial governments and municipal or regional governments.

The level of private sector donations, in total, was between that of the provincial and municipal governments for theatre and dance companies while in opera it exceeded each level of government funding and in music it fell between provincial and federal levels.

On the expenditure side, personnel costs accounted for approximately 55% of the average expenses for theatre companies, less than 50% for dance and opera companies and rose to 68% for music groups. Publicity and administration each accounted for between 4% and 11% of total expenses, depending on the discipline. Other production costs, such as sets, costumes, props, technical equipment and tickets, accounted for 18% of theatre, 10% of music, 25% of dance and 22% of opera total average expenses.

Professional theatre is the most prevalent of the performing arts in Canada. In 1986, more professional theatre companies gave more performances before more Canadians than all the professional music, dance and opera companies combined.

Symphony orchestras. Most major Canadian cities now support symphony orchestras. Several, including the Toronto, Montreal and the National Arts Centre orchestras, have achieved international status.

Dance. Three major Canadian dance companies, the National Ballet, the Royal Winnipeg Ballet and Les Grands Ballets Canadiens, have been enthusiastically acclaimed internationally. In recent years, smaller professional groups have emerged, usually called chamber or concert ballet companies and a growing number of leading, innovative modern dance companies, such as the Toronto Dance Theatre, Robert Desrosiers Dance Theatre and the Anna Wyman Dance Theatre provide exciting and diverse programs.

Opera is the most limited of the performing arts in its sphere of influence, but this most lavish of the arts is attracting growing numbers of devotees. The Canadian Opera Company now takes its ensemble productions from East to West.

Regional picture. Activity in the performing arts is characterized by regional differences, influenced by Canadian geography and demography. Distribution of the population determines where

performing arts companies establish themselves. Large cities offer the sustaining market as well as the creative climate, training ground and community of artists that foster development. But Canada's handful of large cities are strewn unevenly across the country.

Since 1980, the cultural initiatives program of the Department of Communications has contributed \$100 million to regional performing arts and heritage organizations for the renovation or construction of adequate facilities and for festivals and special events.

If population concentrations are not sufficient to support performing arts organizations, those companies must seek out audiences. This means touring. In 1986, over one in four theatre performances was given on tour, in music one in eight, in dance slightly less than one in two, and in opera about one in five.

Another dimension underlies touring. At the level of national policy, this first received formal recognition in 1968 with a federal government statement of support for democratization of cultural opportunities and decentralization of cultural resources. The aim was to ensure that as many Canadians as possible would have access to the performing arts. The touring office of the Canada Council has since helped many arts groups perform across Canada, often in quite remote communities. The emergence of a pool of professional facilities, completely equipped and managed, which present both local companies and artists on tour, has also increased growth.

One of the cultural roles of touring is to help different regions become more aware of each other, reinforcing a sense of the Canadian community.

Economic picture. The performing arts cannot earn enough money to meet expenses and depend on massive financial transfusions in grants and subsidies. This leaves them vulnerable to changing economic winds. Historically, in times of economic retrenchment, the arts have been the first to suffer funding cuts. Rising costs and declining subsidies double the jeopardy.

Earned revenue is the income a performing arts organization generates from its own operations, primarily from box-office sales but also from such other sources as guarantees, and program, souvenir and beverage sales at performances. Average earned revenues per performance in 1986 were: theatre, \$2,062; music concerts, \$12,333; dance, \$6,004; and opera, \$18,808.

In 1986, total costs distributed per performance resulted in average costs per theatre performance of \$3,679, per music concert \$27,373,

per dance company performance \$14,893 and per opera \$41,145. The income earned by theatre companies represented 56% of total revenue. Opera earned 47% of its total revenue, music, 46% and dance, 41%.

Grants and subsidies come from two main sectors, public (governments) and private. On average, grants represented half (50%) of the total revenue of performing arts organizations in 1986. Governments at all levels are the major benefactors. In 1986, 73% of all grants and subsidies to the performing arts flowed from the public coffers; 35% were federal, 28% provincial and 10% municipal. The remaining 27% came from the private sector. As government funding tightens, private sector support is gaining attention. Main sources of private funds are foundations, corporations, individuals, fund-raising campaigns by volunteer committees, bequests and endowments, bank interest and returns on investments.

15.2.1 National Arts Centre (NAC)

Parliament passed the National Arts Centre Act in 1966, creating a corporation to operate and maintain the centre, to develop the performing arts in the national capital area, and to assist the Canada Council in the development of the performing arts elsewhere in Canada. The centre, opened to the public in May 1969, stands on Confederation Square in the heart of Ottawa, a series of hexagonal halls built on landscaped terraces along the Rideau Canal.

The NAC has three main halls. The Opera, with 2,300 seats, was designed primarily for opera and ballet, with a full-size orchestra pit and advanced sound, lighting and other technical equipment. Its stage is one of the largest in the world, 56.7 by 33 metres, and its facilities can handle the most complicated changes required by touring companies. The 950-seat Theatre is ideal for Greek, Elizabethan or contemporary plays, and its stage can be adjusted from the conventional to the thrust stage style used for Shakespearean drama. Like the Opera, it is equipped for television, simultaneous translation and film projection, and its technical facilities are among the best available. The Studio is hexagonal and can seat up to 350 persons in a variety of seating plans. It is used for theatre productions, conferences and cabarets.

Other NAC facilities include: the Salon, a small hall seating up to 150 persons and used for chamber concerts, poetry readings and receptions; a 900-car indoor garage; Le Café, a restaurant which in summer overflows to the sidewalks along the Rideau Canal; and several large rehearsal halls. On the terraces outside,

the NAC plays host to art fairs, craft markets and summer band concerts.

The 46-member National Arts Centre orchestra gives concerts in the centre and on tours in Canada and abroad. Music programming includes about 80 concerts a year, featuring soloists and guest orchestras from Canada and around the world.

The theatre department has offered more than 600 performances of live theatre annually at the centre and on tour. Some plays represent Canada's regional theatre or come from outside the country.

The dance and variety department brings in some 100 different shows a year. The NAC is the only centre in Canada where every major Canadian dance company appears. It has been a showcase for performers from every part of the country. Altogether, in about 900 performances annually, the NAC entertains over 700,000 people.

15.3 Support for the arts

15.3.1 Government support for arts and culture

In 1986-87, governments (federal, provincial and municipal) spent a total of about \$4.6 billion on culture, nearly 2% of all government spending.

The federal share was \$2.5 billion, 2% of all federal spending. Federal expenditures on culture grew at an average annual rate of 7% from 1982-83 to 1986-87. Federal spending was concentrated on cultural industries, accounting for two-thirds of its total cultural budget. Broadcasting, the largest cultural industry, received nearly half of total federal budget for culture.

Provincial expenditures on culture amounted to \$1.3 billion, 1% of total spending. Provincial spending on culture grew at an average annual rate of 7% from 1982-83 to 1986-87. Libraries and heritage projects benefited most from provincial spending. These fields accounted for three-fifths of the total provincial cultural budget.

Municipal governments spent a total of \$0.8 billion on culture, 2% of total municipal spending, in 1986-87. Libraries alone received three-quarters of the total municipal cultural budget.

15.3.2 The Canada Council

Created by Parliament in 1957, the Canada Council's aim is "to foster and promote the study and enjoyment of, and the production of works in, the arts". It offers grants and services mainly to professional artists and arts organizations in the fields of dance, music, theatre, writing and publishing, visual arts and media arts.

The Canada Council is headed by 21 unsalaried public trustees, appointed by the government, for

limited terms, to carry out the responsibilities designated in the Canada Council Act. The members of the Council, who are drawn from every province, meet for several days four times a year in March, June, September and December. At these meetings, they consider and approve grants, and establish the direction for Council policy. Their work is assisted by advice and recommendations from a wide spectrum of specialists, including the Council staff, the disciplinary advisory committees, and more than 800 artists and arts professionals who serve as Council jurors and assessors every year.

The Canada Council Act established the Council as an independent body with control over its own policies and its grant decisions. It reports to Parliament through the Minister of Communications. The Council has three funding sources: an annual appropriation from Parliament which represents almost 90% of its budget; the income from an endowment fund of \$50 million; and gifts and bequests.

In 1987-88 the Council disbursed \$80.3 million in grants and services, \$9.4 million of the total going to individual artists. The arts sections disbursed the following: \$9.3 million for dance, \$14.8 million for music, \$15.7 million for theatre, \$11.4 million for writing and publishing, \$5.4 million for visual arts, \$0.9 million for Art Bank purchases, and \$3.6 million for media arts. The Explorations Program disbursed \$2.6 million, the Touring Office granted \$3.6 million, and \$3.5 million was disbursed by the Public Lending Rights Commission which was established in 1986 to compensate Canadian authors for the free use of their works in public libraries.

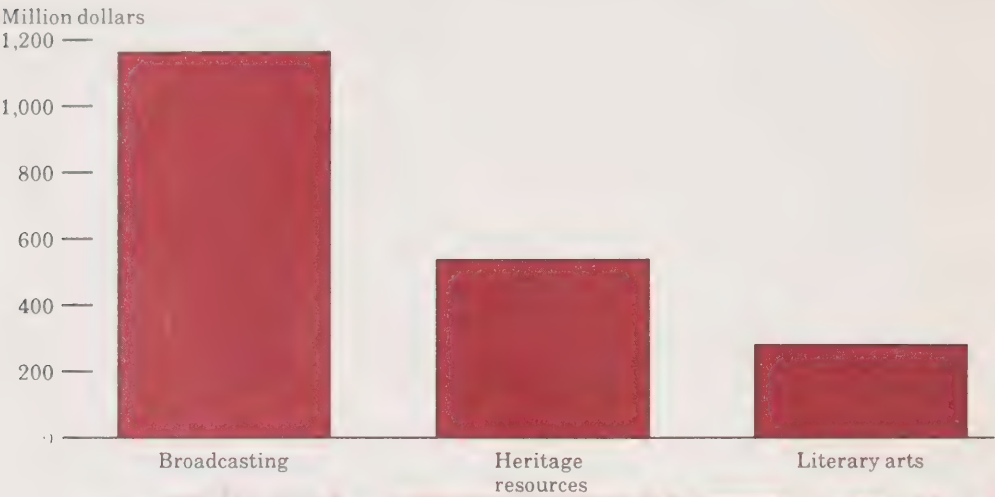
Certain programs funded by the Department of External Affairs are administered by the Canada Council, namely the visiting foreign artists program and the rental of studios in Paris and New York for Canadian artists.

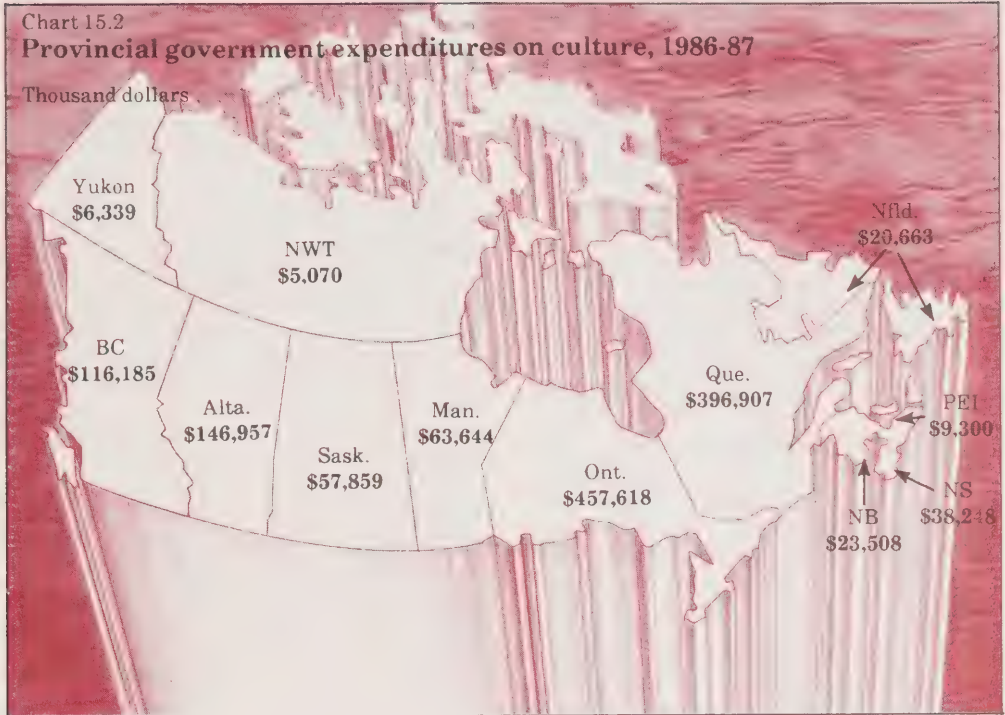
The Council offers a number of prizes and awards to distinguished members of Canada's artistic and scholarly communities: the Molson Prizes, the McLuhan Teleglobe Canada Award, the Glenn Gould Prize, the Governor General's Literary Awards, and several other prizes in dance, music, theatre, visual arts and media arts.

The Council administers the Killam Program of prizes and fellowships. The Izaak Walton Killam Memorial Prizes are awarded annually to eminent Canadian scholars in science, engineering or medicine. The Killam Research Fellowships are offered to scholars of exceptional ability engaged in research projects of broad significance in the humanities, social sciences, natural sciences,

Chart 15.1

Major federal expenditures for arts and culture, 1986-87





medicine, engineering and studies linking any of these disciplines. In 1987-88 awards made under the Killam Program totalled \$2.1 million.

Finally, under the Canada Council Act, the Council provides the secretariat for the Canadian Commission for UNESCO (United Nations Educational, Scientific and Cultural Organization). The Commission's main responsibility is to ensure non-political liaison with the national professional community in the fields of science, culture, communications and education; to advise governments and the private sector on their participation in the UNESCO program; and to ensure proper Canadian representation at UNESCO conferences.

15.3.3 Provincial aid to the arts

Provincial governments spent a total of about \$1,342.3 million on culture in Canada in 1986-87. Libraries accounted for a major portion of this amount. Table 15.2 provides additional information.

Newfoundland. The culture, recreation and youth department operates arts and culture centres at St. John's, Gander, Grand Falls, Corner Brook, Stephenville and Labrador City. In addition to these centres for the performing and visual arts, the province also provides touring attractions for

sponsor groups in approximately 15 locations in the province. The touring program consists of provincial, national and international companies, and artists who perform throughout the year.

The province also funds the Newfoundland and Labrador Arts Council, founded in 1980, which provides funding for amateur and professional arts organizations, and to individual artists. There is an annual arts and letters competition sponsored by the department, in addition to a small grants and awards program.

Through the public works department, the province operates an art acquisition program, enabling the province to acquire works by Newfoundland visual artists for its permanent collection and to display these works in government-owned buildings.

Prince Edward Island. The community and cultural affairs department is responsible for a broad range of policies and programs in support of heritage, museums, the arts and cultural industries. The provincial museums mandate is carried out on behalf of the department by the PEI Museum and Heritage Foundation. The PEI Council of the Arts is responsible for most arts funding, and the department supports six regional arts councils throughout the province. In addition,

operating support is provided to a number of other agencies and organizations.

Nova Scotia. The department of tourism and culture, cultural affairs division, is responsible for cultural development, including performing arts, visual arts, literary arts, production crafts, film and video, publishing, heritage, and multiculturalism. The department provides grant support to cultural institutions, professional performing companies, community arts groups and individual artists. In addition, it supports Cultural Federations Nova Scotia, a cultural umbrella organization and eight discipline based cultural federations which act as service agencies to their members and the public for arts and cultural programs.

In New Brunswick a cultural development branch provides technical, financial and other resources for the development of the arts in the province.

The grants program is one aspect of the services offered and was created to enable New Brunswick residents to initiate and participate in a wide range of cultural activities. Most grant programs favour persons with Canadian citizenship, New Brunswick residency, a commitment of personal resources, and evidence of support from other sources, as well as an established status at the professional or community level. Individuals meeting eligibility criteria may receive grants to assist with travel to cultural conferences or workshops. Visual artists may also receive assistance for purchase of their works by the provincial art bank or in solo exhibitions. Assistance for short-and long-term projects or for weekend workshops is available in the various disciplines. A variety of start-up, maintenance and project grants are also available to community and provincial organizations.

Professional companies and organizations in the performing and visual arts may be eligible to receive operating or project grants. Assistance and services to such companies and organizations may be provided for touring, publishing and arts marketing.

Quebec. The cultural affairs department encourages the development of the arts and literature, strives to enhance their prestige abroad, and supports the conservation and promotion of Quebec's heritage. Several programs provide financial and technical assistance to professional artists and emerging creative talent for research, creation and production in such fields as music, film, visual arts, literature, crafts and theatre. Other programs provide assistance for development of the public library system, construction

and renovation of cultural facilities throughout the province and the export of Quebec's cultural products.

In addition, the department supports the activities of cultural organizations, artists' associations and cultural industries, and protects the socio-economic status of Quebec artists through legislative initiatives.

Through its regional branches, the cultural affairs department is active in all parts of the province. It operates a network of seven music and two dramatic arts conservatories, which train young artists in these disciplines. The Archives nationales du Québec (national archives), also active throughout the province, is responsible for collecting, conserving and disseminating the archival heritage, and plays an important role in protecting, conserving and promoting private archives.

The department operates the Bibliothèque nationale du Québec (national library) which collects, conserves and disseminates works published in Quebec and books about Quebec published abroad, and is responsible for the Centre de conservation du Québec (conservation centre), devoted to the restoration of works of art.

In conjunction with the department of higher education and science, the department annually awards the Prix du Québec to citizens of the province who have produced a distinguished body of work in literature, the visual arts, the performing arts, the cinema, the humanities or the sciences.

Ontario. The ministry of culture and communications provides assistance for a wide variety of endeavours to stimulate cultural expression and preservation and to foster the development of individual and community excellence. It assists the arts in all their varied forms in all regions of Ontario. Government support is supplied in accordance with the arm's length principle, with artistic decisions removed from the political process. In addition, it allocates funds to the Ontario Arts Council and grants to galleries and art service organizations. The Council, in turn, provides financial assistance to organizations and individual artists in a wide range of disciplines.

Provincial cultural agencies and institutions together hold collections valued at more than \$1 billion, occupy capital facilities worth \$500 million and absorb more than 40% of the ministry's budget. The ministry provides support to the Art Gallery of Ontario, CJRT-FM, the McMichael Canadian Collection, the Ontario Arts Council, the Ontario Film Development Corporation, the Ontario Heritage Foundation, the Ontario Science Centre, the Royal Botanical

Gardens, the Royal Ontario Museum, Science North and TVOntario.

To strengthen the development of Canadian culture, the ministry is developing comprehensive support for cultural industries. It also acts as an advocate for cultural industries within the provincial government, and serves as their chief information source about programs offered by the province and other jurisdictions.

The ministry supplies financial and technical assistance to sustain the growing heritage enthusiasm in Ontario communities. It also provides staff support for the programs of the Ontario Heritage Foundation, the provincial agency that offers leadership in the preservation and promotion of heritage resources.

The Archives of Ontario preserves Ontario's priceless documentary heritage. Through its programs and services, the public has access to the facility's fascinating collection of private diaries, manuscripts, photographs, maps, drawings and government records. Operating and project funds are provided to help public libraries across Ontario extend free access to a variety of knowledge and information resources.

Ministry-funded community information centres provide personal information counselling to expedite access to public and volunteer services at the local level. The Association of Community Information Centres in Ontario, with ministry support, serves its members across the province.

Manitoba. The culture, heritage and recreation department, directly and through its various branches and agencies, provides the means by which cultural, heritage and multicultural programs and activities, at all levels of endeavour, are developed, encouraged and sustained. Such major provincial institutions as the Winnipeg Art Gallery, the Ukrainian Cultural Centre, the Brandon Auditorium, The Manitoba Museum of Man and Nature, the Centennial Concert Hall and the Centre Culturel Franco-Manitobain, receive direct departmental support.

Programs at the community-based level, such as arts schools, community arts councils, ethnocultural activities, and provincial-based heritage organizations, societies and museums are served by branches of the department. Support is provided to Manitoba's cultural industries, in particular, film, publishing and sound, through the cultural industries development office, with cost-shared contributions from the Department of Communications and Manitoba's culture, heritage and recreation department.

The Manitoba Arts Council (MAC) extends support to professional arts organizations and

individual artists in all disciplines, and provides a variety of programs directed to arts exposure, student aid and touring. Its access and arts ventures programs are available to non-professional artists and arts groups.

In addition, the Manitoba Arts Gaming Fund Commission acts as an advisory group to the MAC for the purpose of distributing lottery funds designated for arts and culture.

A Manitoba cultural council operates as an umbrella organization for distributing lottery funds to the ethnocultural community; the Manitoba Heritage Foundation distributes funds for heritage purposes and the community services umbrella supports other forms of community recreation.

The Saskatchewan Arts Board gives Saskatchewan people opportunities to engage in drama, the visual arts, music, literature, crafts and other arts. The arts board is autonomous, funded by the provincial government, earned revenue and donations. Two widely known arts board projects are a school of the arts, and a permanent collection of arts and crafts by provincial artists.

Alberta Culture and Multiculturalism is comprised of three divisions, including cultural development, historical resources and cultural heritage. To ensure that cultural development becomes an enriching reality in the lives of the people of Alberta, the cultural development division promotes, encourages, supports and co-ordinates a variety of cultural activities.

Government and public efforts to preserve, study, and interpret the evidence of Alberta's human and natural history are co-ordinated by the historical resources division which operates 12 historic sites, the Tyrrell Museum of Paleontology in Drumheller and the Provincial Museum of Alberta in Edmonton. The archaeological survey of Alberta seeks to protect, preserve, research and educate the public about Alberta's prehistoric and historic archaeological sites. Museum services provides all museums in Alberta with advice and technical assistance in all aspects of museum development and operation.

The preservation, enhancement and development of artistic, historical and language resources by ethnocultural groups in Alberta are promoted by the cultural heritage division which encourages ethnocultural groups to share their traditions with others.

British Columbia. The government of British Columbia fosters the development of cultural activities in the province through the culture, recreation and historic resources division of the ministry of

municipal affairs, recreation and culture. This division is responsible for developing and administering programs for heritage conservation, museums, public libraries, and the arts. It also operates many historical parks; among them, Barkerville and Fort Steele.

In addition, the province financially supports the following cultural agencies: the Royal BC Museum, BC Film, the Knowledge Network, the Arts, Science and Technology Centre, and the Emily Carr College of Arts and Design.

15.3.4 Canadian Conference of the Arts

The Canadian Conference of the Arts was established in 1945 as a national, non-governmental, non-profit association to "ensure the lively existence and continued growth of the arts and the cultural industries in Canada".

Conference membership of 1,200 organizational and individual members includes a wide spectrum of artistic and cultural associations, organizations and institutions. Individual membership includes artists, arts administrators, educators, and other concerned arts supporters.

The conference endeavours to strengthen public support and enhance public awareness of the role and value of the arts. In short, it is an arts-based advocate for the arts.

15.4 Museums and galleries

Museums of Canada range from collections of local historical artifacts and objects to large government-operated institutions. Many larger museums, especially the components of the National Museums of Canada and the Royal Ontario Museum, are distinguished for research and publication of scholarly works and as cultural centres. They offer many services through exhibits, guided tours, lectures and scientific and popular publications.

Work with schools may involve classes in the museum or visits to the schools by museum lecturers with exhibits, guided tours for visiting classes, loans of materials to schools, and training student-teachers in use of the museum. For children, a number of museums have Saturday lectures and film showings, nature clubs and field excursions. Museum field parties provide research training to university students, and museum staff act as professional consultants to foreign scholars and institutions.

For adults, museums offer exhibitions lectures, film shows and guided tours. Staff members give lectures to service clubs or other groups, and hobby clubs such as naturalist groups, mineral clubs and astronomy societies, which may use the museum

as headquarters. Travelling exhibits are prepared for local fairs, historical celebrations and conventions. Some Canadian museums have regular radio or television programs. Some historical museums stage annual events to demonstrate arts, crafts or industries represented by the exhibits.

Public art galleries and art museums often conduct Saturday classes and tours for school pupils and adults. Radio talks, lectures and concerts are provided by various galleries as well as travelling exhibitions.

Heritage institutions, including archives, historic sites, exhibition centres, planetariums, aquariums, botanical gardens and parks, also provide a rich assortment of heritage-related activities.

15.4.1 National museums

In 1987, the government announced the disbanding of the National Museums of Canada (NMC), a Crown corporation that was established in 1968 by the National Museums Act, and which had incorporated the national museums in a single administration. The National Gallery of Canada, including the Canadian Museum of Contemporary Photography; the Canadian Museum of Civilization, including the Canadian War Museum; the National Museum of Natural Sciences; and the National Museum of Science and Technology, including the National Aviation Museum and the Agricultural Museum will function independently as Crown corporations upon passing of this new proposed legislation. All are located in the National Capital Region.

In February 1982, the Canada Museums Construction Corporation was formed to be responsible for the construction of buildings to house the National Gallery of Canada and the Canadian Museum of Civilization.

Designed by Montreal architect Moshe Safdie, the new building for the National Gallery of Canada was constructed as a joint venture with Parkin Partnership of Toronto. The building was opened in 1988 at Sussex Drive and St. Patrick Street in Ottawa's historic Byward Market area.

For the Canadian Museum of Civilization, the government approved an architectural design by Douglas J. Cardinal of Edmonton, in co-operation with Les architectes Tétrault, Parent, Languedoc et Associés of Montreal. The model was unveiled to the Canadian public in November 1983, and construction began early in 1984, in Parc Laurier, Hull, Que. The museum was opened to the public in 1989.

In 1982, the government also approved the construction of the first phase of a new building for the National Aviation Museum. In June 1988,

a new building, housing one of the world's finest aeronautical collections was opened to the public.

The spectacular triangular-shaped building provides space for aircraft display, collection storage and restoration, a foyer and a boutique, as well as an area for the Royal Canadian Air Force Hall of Tribute.

The Canadian Museum of Civilization conducts research in Canadian studies and collects, preserves and displays objects which reflect Canada's cultural heritage. Activities extend across the country through field research programs and publications. Staff includes archaeologists, ethnologists, anthropologists, historians, folklorists, musicologists, curators and specialists in various other museum disciplines.

In the summer of 1988, the Canadian Museum of Civilization, housed in the Victoria Memorial Museum Building, closed its doors to the public in order to begin the lengthy process of moving its collections to its new location. The new Canadian Museum of Civilization which opened in June 1989, is located in Hull, Que., facing the Parliament Buildings across the Ottawa River. Its displays include exhibitions designed to be experienced rather than simply seen. The museum offers an informative and entertaining perspective on 10,000 years of human history in Canada. Life-size reconstructions of historic sites and situations and interactive activities bring visitors into dramatic contact with Canada's colourful past and cultural heritage.

The Grand Hall, as one vivid example, provides a complete West Coast Indian village in the museum, with traditional totem poles and longhouses in a rain-forest environment. The exhibition illustrates the daily life and rich culture of the people of the Pacific region. The Children's Museum allows youngsters to follow the trail of archaeologists and anthropologists in special galleries, animated with activities designed to help them to discover Canada's past.

The History Hall brings visitors through a series of historic settings, each illustrating an aspect of the past and allowing a unique view of Canadian settlements from Newfoundland to British Columbia.

The first-in-the-world double cinema, capable of projecting both Imax and Omnimax format film, is a main feature of the new Canadian Museum of Civilization.

The Canadian War Museum, associated with the Canadian Museum of Civilization, highlights the military heritage of Canada. The collections range from cap badges and tanks to the finest assemblage of war art in the world. This museum

studies the many aspects of human conflict from a military history perspective. Three floors of exhibit galleries convey four centuries of armed struggle by Canadians from the first European contact to World War II. Annual special exhibits focus on various chapters of Canada's military past from the role of women in war to the wartime work of artists such as Alex Colville. In addition, travelling exhibitions, a historical publications series and educational programs disseminate research and collections to an international audience.

The National Museum of Natural Sciences, located in the heart of the National Capital Region, presents six permanent exhibit halls: "The Earth", "Life Through the Ages", "Birds of Canada", "Mammals in Canada", "Animals in Nature" and "Plant Life". Each of these galleries introduces the visitor to both microscopic and larger-than-life details of our natural world, using varied communications techniques such as computers, video, stills, touch displays, workshops, exhibits, concerts and real specimens. More than 185 volunteers provide interpretive visits for students, teachers and special groups. Travelling exhibits, lectures, films, books and free publications bring the National Museum of Natural Sciences to its visitors in Ottawa and throughout the country.

The five scientific divisions: botany, invertebrate zoology, vertebrate zoology, mineral sciences, paleobiology and the zooarchaeological identification centre maintain the museum's collections, which are among the best in the world. Fieldwork and laboratory research are actively supported by the museum, both through its staff and through associated scientists from outside organizations. Throughout the years, the museum has produced hundreds of scientific publications, making research results available internationally.

The National Museum of Science and Technology has had more than 10 million visitors since it opened in 1967. It presents scientific discoveries and technological advances in a hands-on manner that allows visitors to participate in and get close to the exhibits, objects and machines on display. In the physics hall, for example, they can perform experiments and test their physical abilities and dexterity.

The halls are dedicated to ground transportation, communications and space, astronomy, time pieces, computer technology, agriculture and graphic arts.

The public programs and educational activities of the museum include daily demonstrations, guided interpretive programs on about 25 subjects,

a number of extension programs, both regional and national, and an evening astronomy program in which participants view the stars through Canada's largest refracting telescope. In addition, the museum issues several publications (pamphlets and monthly sky charts, for example) and takes part in agricultural fairs. The museum has a specialized library of about 20,000 books, journals and reference works.

Visitors interested in aviation may tour the National Aviation Museum's collection at Rockcliffe airport. It contains 113 aircraft, along with a collection of historic engines and other artifacts, illustrating the evolution of the flying machine in peacetime and in war, and the place the airplane played in Canada's development. In the main exhibit hall of the new building, visitors can experience the "Walkway of Time" where the eras of aviation from the turn of the century to the present are examined. The following eras are also represented: "Pioneer", "World War I", "Between the Wars", "World War II" and "Post World War II".

The museum's library collection includes 4,000 books, 4,000 bound serial volumes, and a number of aircraft, and avionics manuals.

The Agricultural Museum was created in October 1983 as the result of a joint effort by Agriculture Canada and the National Museum of Science and Technology. It is, to some extent, an extension of the agricultural technology division of the National Museum of Science and Technology. It is located at the Central Experimental Farm in Ottawa, on the upper floor of the dairy barn which contains the Agriculture Canada showcase herd. The museum is in an ideal location, surrounded by fields, and with magnificent flower gardens and an arboretum nearby.

15.4.2 The National Gallery of Canada

The National Gallery of Canada, associated with the founding of the Royal Canadian Academy of Arts in 1880, was incorporated by an act of Parliament in 1913. Its function was to encourage public interest in the arts and to promote the interests of art throughout the country.

The new National Gallery opened in Ottawa, May 1988, featuring a multitude of galleries, including Canadian Galleries; European and American Galleries; Inuit Art; Asian Art; Contemporary Art; Prints, Drawings and Photographs; and the Rideau Convent Chapel, a 100-year-old chapel, rebuilt within the National Gallery.

The gallery's collections, ranging in time from the 12th century to the present, have developed

along national and international lines. Its holdings include the largest and most comprehensive collection of Canadian art in existence. Of the more than 40,000 works of art in the collections, 75% are Canadian. Many old masters are included in the gallery's European collection. Some Chardins, a Rembrandt and a Rubens were acquired from the famous Liechtenstein collection. The Massey Foundation presented its collection of English painting to the gallery in the late 1940s and the Vincent Massey bequest of 100 works by Canadian artists was received in 1968. Other gifts and bequests include the Bronfman gift of drawings (1973), the Henry Birks collection of Canadian silver (1979), the Max Tanenbaum collection of Indian and Tibetan art (1979) and the Phyllis Lambert gift of Walker Evans photographs, bringing the National Gallery's collection of photographs to approximately 16,000 works.

Visitors may view special exhibitions and permanent installations, attend lectures, gallery talks, films, guided tours and special performances and enjoy the gallery's publications. The gallery participates in the preparation of major international exhibitions such as "Degas", which was shown at the Grand Palais in Paris, the National Gallery of Canada in Ottawa, and the Metropolitan Museum of Art in New York. It also prepares major exhibitions of Canadian art in collaboration with the Department of External Affairs and brings exhibitions from abroad to Canada.

The Canadian Museum of Contemporary Photography, with approximately 150,000 photographs in its collection, was moved to the National Gallery from the National Film Board in 1984-85. It undertakes a broad range of activities targetted at a large national audience and an increasing international one. The activities include travelling exhibitions, loans, publications, educational programs, special exhibitions and national services. In future, the Canadian Museum of Contemporary Photography will be housed in the refitted rail and streetcar tunnel structure which runs along the west side of the Chateau Laurier Hotel in Ottawa. The new building is expected to open in late 1990.

15.4.3 National programs

With the disbanding of the National Museum Corporation, the National Programs, including the Canadian Conservation Institute (CCI), the Canadian Heritage Information Network (CHIN), the Museum Assistance Programs and the International Program, were transferred to the Department of Communications. The Mobile Exhibits Program was terminated.

The Canadian Conservation Institute (CCI) is engaged in the conservation of cultural artifacts, technical consultation, information and research on the preservation of collections for museums across Canada. It also provides advanced training of conservation personnel from museums and art galleries.

The Canadian Heritage Information Network (CHIN) provides a wide range of services to help museums document and manage information about their collections. The network maintains a centralized automated information management system which contains more than 2.4 million records on artifacts and specimens in the collections of about 150 museums and other related institutions. CHIN also manages a national inventory of the collections of 33 museums and art galleries, which is accessible to all its users.

The international program encourages interest in international museum affairs and facilitates the exchange and circulation of exhibitions to and from Canada.

The museum assistance programs provide financial and technical assistance to non-profit museums, galleries and related institutions, in keeping with the objectives of the national museum policy to preserve and increase public access to Canada's cultural heritage. In 1987-88, \$8.4 million were granted to help in the following areas: public programming, conservation, exhibitions, registration of collections, special activities, training, upgrading of facilities and purchases of equipment.

15.5 Heritage institutions

Information concerning this heterogeneous sector is collected on an annual basis by the culture sub-division of Statistics Canada. The 1985-86 survey of heritage institutions indicated a large proliferation of museums in this field (Table 15.6).

Nature parks, with interpretation centres, account for the largest proportion of total attendance at heritage institutions. While a decrease of almost 10% was evident in 1985-86, attendance was over 44 million. This total reflects visits to the interpretation centres within the nature parks and the general recreational activity.

The pattern of funding for these parks highlights the fact that most operate under some level of government. In 1985-86, grants received from all levels of government represented 80% of the total operating revenues, \$130.5 million. In addition to the budget received from the public coffers, nature parks reported a total of \$34.3 million in earned revenues from campground fees, admission

fees and rental of equipment. Adjusting for inflation, earned revenues from parks increased by over 10% in 1985-86, while government funding decreased by 5%; total operating revenues remained unchanged.

Expenditures by nature parks decreased by 4% with over \$130.8 million reported. Personnel costs accounted for over two-thirds of these expenses.

Other heritage institutions, including museums, art museums (non-commercial art galleries), historic sites, archives, planetariums, zoos, aquariums and botanical gardens, reported total operating expenditures of \$422.3 million for 1985-86, an increase of 1% from the previous year. Although personnel costs represented the largest budget items for all types of institutions, there was considerable variation from the average of 63% of total operating expenditures. Archives were the most labour intensive (77%) while art museums spent less than one-half of their budget (48%) on salaries and wages. One of the most important factors determining an institution's sources of revenue is its governing authority. Public institutions represented 35% of these heritage institutions surveyed, accounted for 75% of the total operating revenues and received over 77% of the total unearned revenues, primarily budgetary allocations, from some level of government.

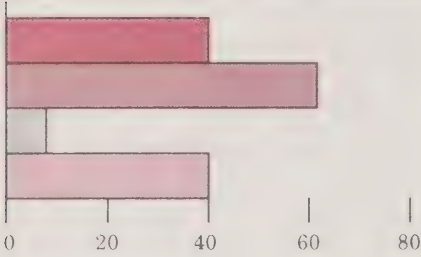
Total 1985-86 operating revenues for heritage institutions (excluding parks) amounted to over \$462.1 million, an increase of less than 1% from 1984-85. Government funding, through grants or direct budgetary allocations, contributed approximately three-quarters of the total operating revenues and totalled \$342.1 million. Provincial funding showed a 3% increase, after adjusting for inflation, while federal funding actually decreased by 2%. Other government funding, mostly local, remained stable. Earned revenues, amounting to \$85.5 million, represented almost 20% of the total operating revenues. Other forms of funding, such as institutional or corporate budgets and private or corporate donations, accounted for the remaining operating revenues.

Attendance at these institutions has been fairly stable in recent years, with over 53.4 million visits reported across Canada for 1985-86.

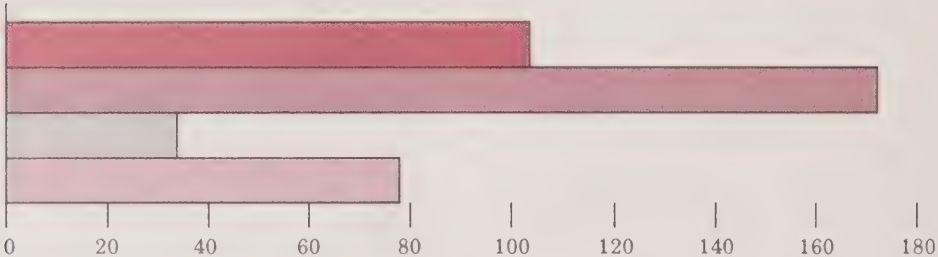
Volunteers play an important role in the heritage community. In 1985-86, over 26,000 volunteers contributed their time and services to heritage institutions (excluding nature parks), a 13% increase over 1984-85. A heavy reliance on part-time or seasonal staff is also evident. While approximately 8,000 full-time personnel were reported, over 11,000 part-time and seasonal

Chart 15.3
Net domestic book sales of publishers, 1986-87

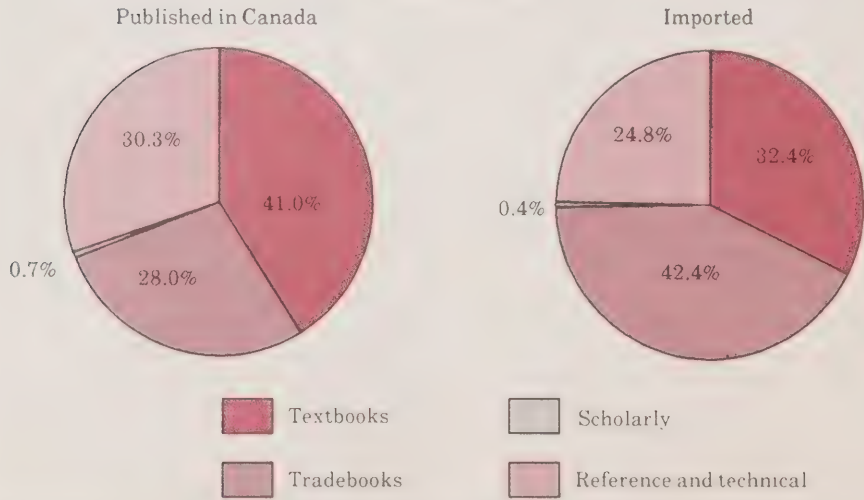
Number of publishing firms distributing imported books



Number of firms publishing books



Sales of books



personnel were working in museums, historic sites, archives or other heritage institutions. More than half of the museums, historic sites, and archives reported no full-time personnel.

15.6 Books

15.6.1 Book publishing

Estimated sales by publishers and exclusive agents reached \$862.6 million in 1986-87 of which \$446.5 million were imports. Sales of own titles by book publishers in Canada increased by 9% between 1985-86 and 1986-87. During the same period, exclusive agency sales of imported books increased by a similar percentage.

According to information collected from 266 publishers surveyed, French-language firms accounted for total sales of \$86 million, while the English-language publishers reached \$330 million. Of the latter figure, 51% was attributable to foreign-controlled publishers. These foreign-controlled firms accounted for almost 63% of the sales in the English-language market. For the French-language publishers, the foreign-controlled sector accounted for 18% of their total sales.

The publishing activities of Canada's book publishers cover three main markets: textbooks, tradebooks and information titles including professional, technical and reference books. Overall, the textbook market is the largest sector with over 40% of the sales of Canadian-published books. This predominance is more pronounced for French-language publishers; textbooks account for 63% of their sales, while tradebooks account for 30%, and information books for 6%. The shares of the three English-language markets are more evenly distributed: textbooks, 35%, tradebooks, 28% and information, 37% of total sales of \$330 million for books published in Canada.

Tradebooks account for 42% of the sales of books imported by the publishers and over 60% of the sales of imports by exclusive agents. These sales totalled \$309 and \$137 million, respectively, for the publishers and the agents operating in Canada.

The publishers established in Canada published over 5,600 new titles in 1986-87 and reprinted close to 4,500 titles. English-language firms reported 3,600 new titles or 64% of the total.

15.7 National archives and library services

The National Archives of Canada, established in 1872 operates under the direction of the

National Archivist by authority of the National Archives Act (1987). As a research institution, it is responsible for acquiring nationally significant documents relating to the development of Canada, and for providing research services and facilities to make this material available to the public. Administratively, it promotes efficiency and economy in the management of government records.

The holdings of the National Archives are extremely diverse. They include private papers of individuals and organizations relating to the society, culture, economy and political development of all periods of Canadian history and copies of documents relating to Canada held in France, England and other countries. Extensive records relating to the departments and agencies of the federal government are retained, as are large collections of visual materials, including photographs of historical relevance, both government and private, as well as documentary paintings, prints, watercolours, medals and heraldic insignia. The archives collects film, television and sound recordings as well as automated public records and machine-readable archives from the private sector. It holds maps and plans pertaining to the discovery, exploration and settlement of Canada and its topography, as well as current topographical maps of other countries. Its library contains more than 80,000 volumes on Canadian history, including pamphlets, periodicals and government publications.

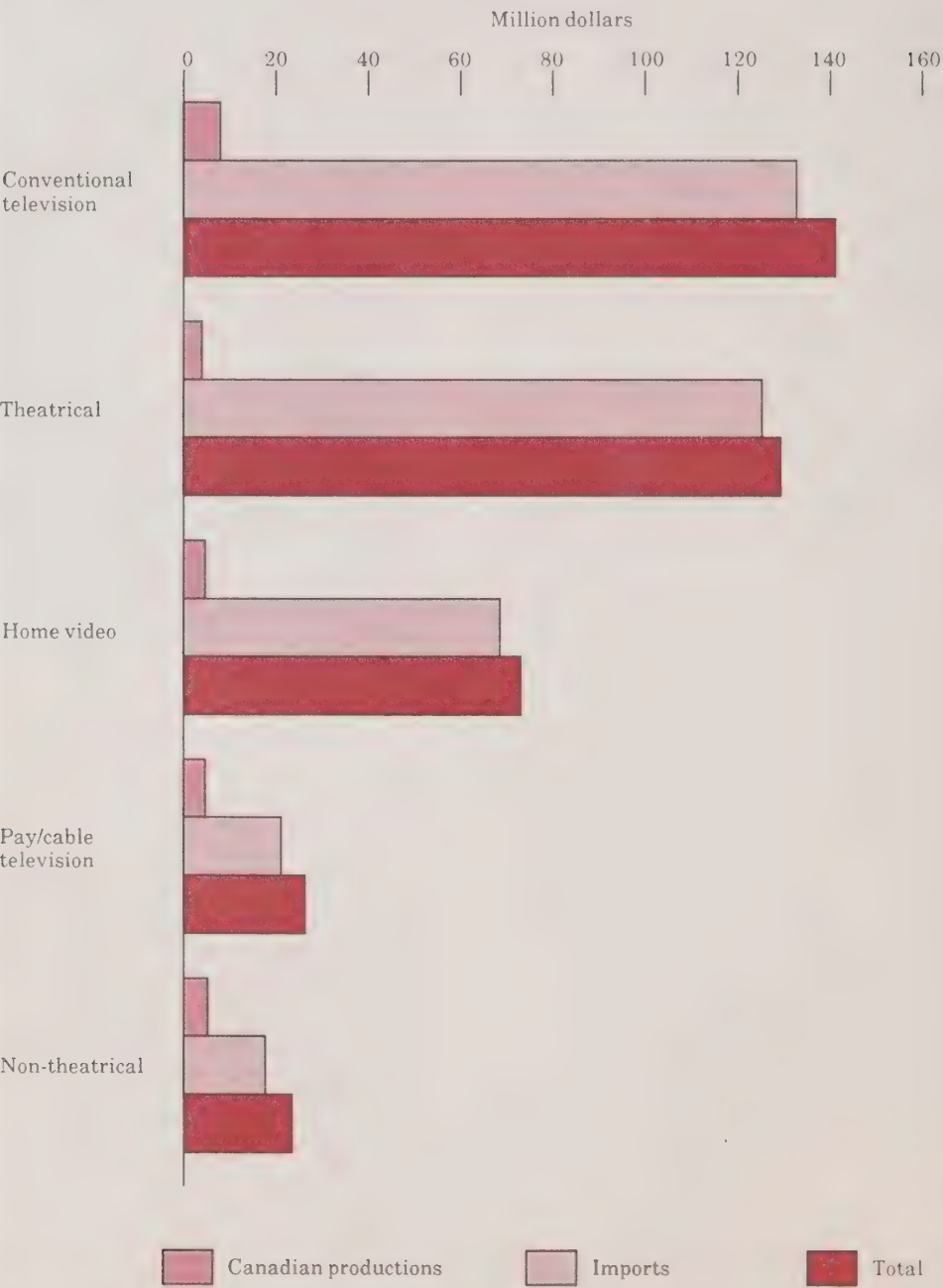
Documents may not be taken out on personal loan, but may be consulted in the archives building. A 24-hour-a-day service is provided for accredited researchers who are researching in textual material. Reproductions of material are available for a moderate fee. Many documents on microfilm may be obtained on interlibrary loan. Archival material is also presented on microfilm, slides and microfiche, in publications and in exhibitions, both in-house and travelling.

A records management branch helps federal departments and agencies in their own records management. At records centres in six major Canadian cities, it provides storage, reference service and planned and economical disposal of dormant federal records.

Branch offices of the National Archives of Canada are in London, England and Paris, France.

The National Library of Canada, is a federal institution, located in Ottawa, whose role is to acquire, preserve and promote the Canadian published heritage; to promote the development

Chart 15.4
Revenue from distribution of film and video productions, 1985-86



of library services nationwide; and to support resource sharing among libraries. The library was created in 1953 and is under the direction of the National Librarian.

The collections of the National Library number approximately 8 million items, consisting of works written by, about, or of interest to Canadians, published in Canada and abroad, with some non-Canadian materials in the social sciences and humanities. In addition to books, the collections also include periodicals, microforms, sound recordings, sheet music, manuscripts, conference proceedings, government documents, university theses, educational kits, newspapers, and pamphlets. Works in recently developed formats, such as compact discs, are also being added to the holdings.

The National Library acquires these items through the legal deposit provisions of the National Library Act of 1969. The National Library has developed specialized collections, such as Canadian theses, newspapers, music, rare books, literary manuscripts, children's literature, multilingual publications, the rights of native peoples, and information for the needs of the Canadian library community. These focused collections, which complement the general collection of *Canadiana*, enable the Library to support Canadian studies.

The National Library offers a wide variety of services to those in the library and information community to better serve their users. The children's literature service, the multilingual biblioservice (supplying books to ethnocultural communities) and the advisory program on library services for disabled Canadians are several examples of the programs aimed at improving library services throughout Canada.

The National Library compiles and publishes *Canadiana*, the national bibliography. *Canadiana* is available in print, microfiche, machine-readable tape, and on-line in the Library's bibliographic system, DOBIS. To further promote Canada's published heritage, the library publishes bibliographies, guides and directories and has an active cultural events program which includes lectures, readings, concerts, tours and both in-house and travelling exhibitions.

The National Library offers a reference service equipped to handle a wide range of enquiries. A location service, that draws on the library's union catalogue of books, serials, newspapers and works for print-handicapped readers, assists libraries in trying to locate items not in their own collections. Applied research and development activity explores the use of computers and telecommunications in improving

library services and in exchanging bibliographic information.

The National Library's collections and services assist researchers who require information or materials to supplement their own resources. The library also helps Canadian authors and publishers by making their works better known. The National Library of Canada serves all Canadians, by ensuring the preservation of the nation's published heritage.

Public libraries are organized under provincial legislation which specifies the method of establishment, the services to be provided and the means of support. Municipalities may organize and maintain public libraries or join together to form regional libraries according to provincial legislation. Provincial public library agencies advise local and regional libraries and distribute grants.

Table 15.8 gives preliminary statistics of Canadian public libraries from annual surveys. In 1986, approximately 3,100 public library service points indicated that they held about 57 million books, reported around 167 million direct circulations, employed 2,089 full-time professional librarians, and spent over \$464 million for their total operations.

15.8 Canadian films

15.8.1 National Film Board (NFB)

The National Film Board of Canada (NFB) was established by an Act of Parliament in 1939 to "produce and distribute . . . films designed to interpret Canada to Canadians and to other nations". Since it was established, the NFB has produced 17,000 audio-visual documents, including more than 6,500 original films. Nearly 100 new productions are added to this national repertoire annually. The NFB has received, over the years, more than 3,000 international awards, which have earned it an enviable world reputation.

The NFB's documentary, animated and feature films are shown in theatres and on television. They are also available through the NFB's offices across Canada to members of the public, educators and community associations wishing to rent or purchase them in 16 mm or on videocassettes. The NFB also produces slide presentations, filmstrips and other documents to meet the needs of the education sector.

Recently, the NFB has been especially interested in research and development in the area of film and video technology, and in the establishment of training programs for young film-makers. In addition, the NFB is establishing 12 Canadian

audio-visual centres, six of which will contain production, marketing and distribution offices.

The productions of the National Film Board of Canada are also distributed worldwide through the Board's offices in New York, London, Paris and Montreal.

15.8.2 Telefilm Canada

Telefilm Canada, formerly known as the Canadian Film Development Corporation, was established by the federal government in 1967. The Corporation aims to foster and promote the development of a feature-film industry and an independent television production industry in Canada. Telefilm currently operates two broad categories of programs — one related to the feature-film industry, and the other related to independent television production — each with different eligibility requirements.

Feature film. The Feature Film Fund is designed to stimulate investment in the production and distribution of high-quality, culturally relevant Canadian dramatic feature films, made by the private sector, and destined for commercial theatrical release.

Telefilm Canada may participate financially in the development, production and marketing of productions. In order to activate the Corporation's financial participation, there must exist a contract between an eligible producer and an eligible distributor guaranteeing the film's theatrical release in Canada, within one year of completion.

In addition to supporting individual projects, Telefilm Canada may also direct its financial participation to eligible companies on packages of projects. The Corporation will provide assistance to develop international co-productions and pre-sales, and to enhance the foreign sales and promotion of Canadian productions. Productions financed through the Feature Film Fund cannot be financed through the Canadian Broadcast Program Development Fund, nor vice-versa.

Financial assistance through the Feature Film Fund is intended to complement other sources of production and distribution financing and may be negotiated as equity investment, long-term corporate loans, secured loans or non-interest bearing advances. A Versioning Assistance Fund is also administered by Telefilm Canada.

Script and project development. The Corporation provides recoverable advances to producers so that scripts may be prepared, budgets developed, and directors and performers secured.

Interim financing. Interim loans allow producers to begin production before equity financing is in

place. Canadian distributors and foreign sales companies can also access the Interim Financing Fund.

The Canadian Production Marketing Assistance Fund was established to improve the marketing and promotional strategies of Canadian productions in national and international markets, and to enhance the competitiveness and visibility of Canadian foreign sales companies both in Canada and abroad.

The Feature Film Distribution Fund was created in order to provide Canadian theatrical distribution with a source of funding to assist in the acquisition of distribution rights to Canadian films, and to provide overall financial assistance which will strengthen the Canadian distribution sector, thus favouring investment of Canadian market revenues into new Canadian productions and ensuring a healthier domestic film industry.

Independent television production. The Corporation participates financially in the Canadian Broadcast Program Development Fund, by means of equity investment, secured loans or loan guarantees, in high-quality Canadian productions in the categories of drama, variety, documentary and children's programming. Each project must meet Telefilm Canada Canadian-content standards and must have secured a guarantee from a Canadian over-the-air broadcaster to broadcast the program within two years of completion. For the purpose of the Canadian Broadcast Program Development Fund, Canadian over-the-air broadcasters are understood to be the CBC/Radio-Canada, all private over-the-air stations or networks and provincial educational authorities which hold a television broadcasting licence. Script and project development, interim financing and Canadian production marketing assistance are also available for broadcast material.

The Festivals Office is responsible for coordinating Canadian participation in film festivals around the world and for establishing national film representation abroad. It also administers a grants program to Canadian Film Festivals. Canada has official co-production treaties with 16 countries: Algeria, Argentina, Belgium, China, Czechoslovakia, the Federal Republic of Germany, France, Hungary, Israel, Italy, Morocco, New Zealand, Spain, Switzerland, the United Kingdom and Yugoslavia. Such treaties allow producers from two or more countries to share in the creative, technical, and financial aspects of a production while enjoying the benefits accorded a national production in each country (such as direct aid, tax incentives, and quota system).

Telefilm Canada administers these treaties and can participate in the projects produced under them. The Corporation receives and evaluates project applications for recognition as official co-productions. Based on Telefilm Canada recommendations, the Minister of Communications either approves or rejects such applications. While Telefilm Canada advises on all official co-productions, it does not necessarily participate financially in them. The Corporation's participation is based on a more detailed analysis of the merits of the production. The Corporation, in co-operation with the Department of Communications, negotiates and renegotiates existing and potential treaties.

15.9 Home entertainment

Communications services. Almost all Canadians have access to television, radios and telephones. Of 9.56 million households in Canada in May 1987, 99% had television sets, radios and telephones and 45% had video recorders.

TV viewing. The average Canadian spends more time watching television than on any other leisure activity. In 1987, Canadians spent an average of 23.7 hours per week watching television, a level which was virtually unchanged from the preceding five years. In 1987, adult women spent approximately three hours more a week watching television than did adult men. Nationally, teenagers and young children (ages 2-11) were the lightest users of television, with certain variations from province to province. Residents of Newfoundland were the heaviest users of television across virtually all demographic groups, while residents of Alberta reported the lowest average viewing hours.

Canadians tuned to foreign (primarily American) stations for almost a quarter of their total television viewing. In addition, 53% of programs viewed on Canadian stations were foreign, virtually unchanged from a year earlier. Overall viewing of foreign-produced programs remained at almost two-thirds of total viewing time in 1987.

Foreign drama was the single-most popular program category among Canadians. In combination with foreign comedy shows, these programs amounted to over 40% of all television viewing in Canada. Viewing of Canadian programs was concentrated in news and public affairs shows and, to a lesser extent, sports telecasts. News and public affairs programs alone made up almost half of all viewing of Canadian programs.

Film and video distribution. In 1985-86, the conventional or regular television market earned

more revenue for distributors than other markets, outpacing theatrical market as the largest source of revenue for the first time.

The theatrical market, experiencing a decline in attendance, dropped in value from the 1982-83 high of \$155 million to just under \$130 million in 1985-86. This represented an average annual decrease of 6%. Over the same period, the conventional television market increased in value, from \$91 million in 1982-83, to \$141 million in 1985-86, averaging 16% annually.

Attendance at motion picture theatres reached its peak at 256 million admissions in 1952. Over the next decade, as television became a fixture in almost every household, attendance at theatres declined sharply. The annual number of visits stood at about 100 million throughout the 1960s and 1970s. In 1983, however, attendance at the movies dropped to 86 million, and in 1984, it decreased further to 80 million and remained almost unchanged in 1985.

Home video is becoming the fastest expanding market for distributors; their revenue from this area grew from \$6 million in 1982-83 to \$74 million in 1985-86. Over the same period, pay television and the non-theatrical markets grew marginally.

In 1985-86, Canadian films and videos improved their share of revenue from the sales and rental of films in Canada. In 1980-81, Canadian films and videos accounted for only 5% of distributors' revenues from the sales and rental of film productions. Since then, this figure has fluctuated somewhat and reached 7% in 1985-86. Imported films represented 93% of the distributors' revenue in 1985-86, down from 96% the previous year.

15.10 Fitness and amateur sport

The Fitness and Amateur Sport Act was passed in 1961 to encourage, promote and develop fitness and amateur sport in Canada. Since then, Canadians in general have become increasingly aware of the benefits of adopting an active lifestyle and amateur athletes have shown that they can achieve success in world sport competition.

Two principal program areas, Fitness Canada and Sport Canada, help fulfil the dual role, primarily through the provision of financial contributions to national sport and fitness associations, agencies, institutions and special organizations carrying out specific sport or fitness-oriented projects throughout Canada.

Fitness Canada promotes regular physical activity through its financial contributions, special programs, resource materials and consultative

services, with the purpose of realizing a better fitness level for all Canadians through quality fitness leadership and mass participation in physical activity. While supporting and delivering a variety of programs aimed at the general public, Fitness Canada continues to direct initiatives at specific target populations, such as youth, employees, older adults and the disabled.

In 1987-88, Fitness Canada supported 250 initiatives directed by 55 partner organizations that received a total of \$7.4 million in federal government funding. The main purpose of collaboration with organizations such as the YWCA of Canada, the Canadian Intramural Recreation Association and the Canadian Parks/Recreation Association is to assist them in the promotion and development of participation in physical activity and the provision of related services to Canadians.

For example, along with the Canadian Association for Health, Physical Education and Recreation (CAHPER), Fitness Canada works to ensure that physical education instruction is improved in all Canadian schools and that school boards set a minimum number of physical education hours for all grades. The quality, daily, physical education program aims to improve the fitness levels of Canadian school children, especially during the adolescent years.

Canada's Fitweek, May 26 to June 4, 1989, continued its trend of increasing success every year. It offered 8 million participants the opportunity to try fun and social activities at over 17,000 community events. With over 300,000 volunteers, Canada's Fitweek is by far the largest physical activity event in the country. Events are designed to attract those who do not participate regularly in physical activity while promoting pursuits that can be practiced throughout one's lifetime. The CrownLife PARTICIPAction Challenge alone, one event during Fitweek, attracted slightly over four million participants in 387 Canadian communities.

Fitness Canada continues its collaborative work with the Canadian Chamber of Commerce to develop workplace fitness and lifestyle programs. A national employee fitness survey was undertaken, in 1987-88, and two new publications were produced: *Fitness and Lifestyle at the Workplace* and *Getting Started*.

Initiatives in the areas of fitness for the disabled and older adults have led to the establishment of action plans, based on consultations with representatives of these two target groups. *Blueprints For Action* describes the key issues of concern and program focus, emphasizing areas such as

promotion and education, leadership development, advocacy and participation opportunities.

Fitness Canada responds yearly to thousands of requests from fitness leaders and the general public, distributing over one million resource items. Posters, brochures, publications and audio-visual material dealing with various aspects of fitness and physical activity continue to be very popular.

Sport Canada provides leadership, overall policy direction and financial support to Canadian amateur sport at the national and international levels. By giving guidance in the areas of administration, technical program development and planning to the organizations that serve Canada's athletes and coaches, Sport Canada seeks to stimulate the highest possible level of achievement at the international level and is committed to the development of a strong domestic sport system which provides participation opportunities for all Canadians.

Sport Canada funds and works closely with some 85 national sport organizations in Canada, including national sport governing bodies, responsible for Olympic and non-Olympic disciplines, and others involved in providing support services, in areas such as administration, coaching and sport medicine, or co-ordination, to enable Canadian participation in Olympic, Pan American, Commonwealth or World University Games and other major international sport contests. Sport Canada co-ordinates the activities of these organizations to ensure a strong, integrated delivery system that encourages general participation and high performance sport development.

Through its contributions or "core support" program, Sport Canada assists recognized sport organizations in the areas of association management, technical development and, particularly, high performance sport. This funding covers the payment of salaries for professional, technical and coaching staff, helps defray major costs associated with annual general meetings, clinics and seminars for the training and certification of coaches and officials, national championships and international competitions and assists in the areas of promotion, communications and marketing.

Sport programs. The "Best Ever" winter program was initially established to prepare Canada's "best ever" team for the Calgary Olympics and to assist the winter sport organizations to upgrade their athlete development systems. The Government of Canada renewed its commitment to amateur sport when an extension of the program was announced in March 1988. Although the program

will continue to support the high performance and organizational infrastructure of national sport organizations, the program will also focus on increasing overall winter sport participation in Canada.

Similarly, the “Best Ever” summer program was created to develop the Canadian team for Seoul and to provide special assistance to the sports featured at the 1988 Olympic Summer Games. Aside from ensuring that Canadian athletes received the best possible physical and emotional preparation for the Summer Games, “Best Ever” has also helped to develop a sound administrative foundation on which to build future sport programs.

The Athlete Assistance Program financially assists Canada’s top amateur athletes to defray day-to-day living and training expenses to enable them to successfully pursue sports excellence while maintaining educational or career development. The program recognizes that these expenses increase as athletes strive to attain ever higher levels of achievement and ranks Canada’s athletes accordingly. Payments to Canada’s top 850 amateur athletes average \$5 million per year. Other major programs of Fitness and Amateur Sport also include the Women’s Program and the Program for the Disabled, two programs that are funded jointly by Fitness Canada and Sport Canada.

The Women’s Program seeks to improve the status of women in the fields of fitness and sport in Canada, with emphasis on increased involvement of women as leaders at the national level. Through the Women in Sport and Fitness Leadership Program, a revised training program was initiated for women in sport administration and elite coaching.

The Program for the Disabled, seeks to enhance the participation of disabled Canadians in the pursuit of sports excellence and in fitness-related activities. The Canadian Federation of Sport Organizations for the disabled is the umbrella agency for disabled sport in Canada and it is through a financial contribution to this organization that Sport Canada assists many of the projects that are carried out on behalf of the disabled in Canada.

15.11 Tourism

Tourism affects the lives of almost all Canadians. It has an impact on lifestyles and provides a change of pace from contemporary social pressures. It also can contribute to national unity by increasing understanding among people of different regions

and by distributing the national income among different areas of the country. The economic effects of tourism are dealt with in Chapter 17, Merchandising and services.

Tourism has a role to play in the cultural evolution of Canada. Many cultural activities, such as theatre, music and dance, rely on the attendance of tourists to augment their revenues. For instance, the Charlottetown Festival draws half of its annual audience from the United States; the theatre festivals of Stratford and Niagara-on-the-Lake draw more than one-third of their audience from the US. In addition, many heritage and historical restorations have been undertaken with the goal of attracting tourists — examples include such historic sites as Louisburg in Nova Scotia and Le Vieux Port of Montreal and the renovation of urban water-front areas or historic buildings such as those found in Halifax, Ottawa, Vancouver or Dawson City.

Statistics have demonstrated that destinations exhibiting cultural and historic attractions have maintained or increased their popularity at the expense of the more traditional destinations — those that rely on purely geographic characteristics, such as climate, water and topography, to attract visitors. Tourists are becoming more discerning and demanding about the value for money spent and are putting more emphasis on the tourism/culture connection. Recent promotional campaigns in the US, undertaken by a consortium of arts companies, museums and government agencies, have focused on the tourism/arts connections of the major cities across Canada.

A 1985 study found that Canada’s strength as a vacation destination, for visitors from the US, was the fact that it was a foreign destination, close and familiar, yet different. The essential difference is Canada’s British and French heritage, the ethnic diversity of the people and their regional and local traditions. Canada’s strength as a pleasure travel destination is that it provides a different set of experiences from those offered in the United States. Continued growth and developments within the creative and performing arts communities of Canada can only assist in aiding the evolution of a distinctive and therefore stronger domestic tourism industry.

While not all tourist travel can be considered as leisure in nature — with business, conference and personal travel being the most notable exceptions — leisure activities account for a significant proportion of the time spent while travelling. The activities of Canadian travellers have been reported in the 1988 Canadian travel survey conducted by Statistics Canada and sponsored primarily by

Tourism Canada. At all times of the year, visiting friends and relatives was the leading activity for just over one-half of all domestic trips of 80 km or more in Canada. Other popular activities were shopping (30% of all trips), sightseeing (17%)

and dining at high quality restaurants (12%). Swimming was the most popular sporting activity among Canadians travelling in Canada (10%). Visits to a park or historical site accounted for 7% of all trips in 1988.

Sources

- 15.1 Information Services, Department of Communications.
- 15.2, 15.3.1, 15.5, 15.6.1, 15.11 Education, Culture and Tourism Division, Statistics Canada.
- 15.2.1 Communications, National Arts Centre.
- 15.3.2 Communications Section, The Canada Council.
- 15.3.3 Various provincial boards and departments.
- 15.3.4 Canadian Conference of the Arts.
- 15.4 – 15.4.3 Information Services Directorate, National Museums; National Gallery of Canada.
- 15.6.1 Communications Branch, Department of Consumer and Corporate Affairs (Copyright protection).
- 15.7 Promotion and Media Relations, National Archives of Canada; Public Programs and Cultural Events, National Library of Canada.
- 15.8 Communications Branch, National Film Board of Canada; Telefilm Canada.
- 15.9 Department of Communications (Communications services); Education, Culture and Tourism Division, Statistics Canada.
- 15.10 Promotion and Communications, Fitness and Amateur Sport Branch, Department of Health and Welfare.

FOR FURTHER READING

Selected publications from Statistics Canada

- Culture Statistics: Sound Recording, Preliminary Statistics, annual. 87-202
- Culture Statistics: Periodical Publishing, Preliminary Statistics, annual. 87-203
- Culture Statistics: Film Industry, Preliminary Statistics, annual. 87-204
- Culture Statistics: Government Expenditures on Culture in Canada, Preliminary Statistics, annual. 87-206
- Culture Statistics: Heritage Institutions, Museums, Parks, Historic Sites, Archives, other Related Institutions, annual. 87-207
- Culture Statistics: Television Viewing in Canada, annual. 87-208
- Culture Statistics: Book Publishing in Canada, annual. 87-210
- Culture Statistics: Performing Musicians and Composers, 1982. 34 p., 1986. 87-530
- Culture Statistics: The Economic Impact of the Arts and Culture Sector, 34 p., 1986. 87-532
- Tourism and Recreation, a Statistical Digest, biennial. 87-401
- Domestic Travel, Canadians Travelling in Canada, annual. 87-504
- Arts and Culture: A Statistical Profile, 44 p., 1985. 87-527
- Motion Picture Production, annual. 63-206

More information about these publications is available from Statistics Canada. See Appendix F for a complete list of Statistics Canada offices.

TABLES

.. not available

... not appropriate or not applicable

— nil or zero

-- too small to be expressed

e estimate

p preliminary

r revised

certain tables may not add due to rounding

15.1 Federal government total expenditures on culture, by function and province, fiscal years ending 1985-86 and 1986-87 (thousand dollars)

Function	Year	Nfld.	PEI	NS	NB	Que.	Ont.	Man.	Sask.
Libraries									
National	1985-86	—	—	—	—	19,805	12,016	—	—
Public	1986-87	—	—	—	—	22,266	13,865	—	—
School	1985-86	—	—	—	—	1	45	—	—
University and college	1986-87	2	—	—	—	—	—	—	—
	1985-86	—	—	—	—	3	1	28	9
	1986-87	—	—	—	—	—	30	—	—
	1985-86	—	—	—	—	—	—	—	—
	1986-87	—	—	—	—	—	1	—	—
Total libraries	1985-86	—	—	—	—	19,809	12,062	28	9
	1986-87	2	—	—	—	22,266	13,896	—	—
Heritage resources									
Museums	1985-86	206	193	630	497	27,055	95,621	690	696
Public archives	1986-87	179	171	554	370	37,513	120,331	684	874
Historic parks and sites	1985-86	—	—	361	—	1,224	39,642	425	—
Nature/provincial parks	1986-87	—	—	315	—	830	51,497	368	—
Other heritage	1985-86	1,545	4,849	19,555	555	14,195	6,164	2,159	4,946
	1986-87	2,448	444	10,586	701	16,832	10,261	2,604	2,635
	1985-86	6,383	2,600	12,088	5,405	39,227	12,111	11,964	3,973
	1986-87	11,203	3,179	10,238	6,856	15,229	9,620	5,587	7,908
	1985-86	1,267	1,384	4,584	8,021	18,932	29,882	2,559	1,081
	1986-87	—	651	8,777	—	47,037	34,504	9,497	5
Total heritage resources	1985-86	9,401	9,026	37,218	14,478	100,633	183,420	17,797	10,696
	1986-87	13,830	4,445	30,470	7,927	117,441	226,213	18,740	11,422
Arts education	1985-86	—	—	—	—	45	64	30	—
Literary arts	1986-87	—	—	1	—	73	60	147	—
Performing arts	1985-86	340	113	723	294	8,318	7,366	389	379
Visual arts and crafts	1986-87	534	144	899	612	9,951	10,089	669	775
Film and video	1985-86	729	310	1,380	760	14,879	49,348	4,218	583
Broadcasting	1986-87	604	393	1,500	1,462	15,950	51,406	3,555	728
Sound recording	1985-86	53	32	491	140	2,539	4,851	375	405
Multiculturalism	1986-87	102	47	641	356	3,353	4,708	315	375
Multidisciplinary activities	1985-86	187	72	2,714	1,598	88,180	49,924	3,538	174
Other	1986-87	257	8	4,149	1,434	94,128	51,959	2,800	248
	1985-86	25,584	5,078	24,963	26,769	363,397	502,925	33,966	25,715
	1986-87	29,765	4,416	30,148	27,089	409,288	486,886	35,072	26,845
	1985-86	—	—	—	—	400	30	—	—
	1986-87	4	2	10	—	1,650	1,684	30	10
	1985-86	202	264	476	—	8,687	3,907	1,003	512
	1986-87	202	152	601	266	3,140	7,538	1,240	651
	1985-86	1,685	700	2,447	2,895	23,076	30,735	3,322	5,130
	1986-87	982	1,044	2,426	3,969	27,332	25,087	4,490	6,291
	1985-86	11	—	111	75	98	7,045	77	11
	1986-87	—	—	308	—	295	16,192	86	10
Total expenditures	1985-86	38,192	15,595	70,523	47,009	630,051	851,677	64,743	43,614
	1986-87	46,282	10,651	71,153	43,115	704,867	895,718	67,144	47,355
		Alta.	BC	YT	NWT	National organizations	Foreign	Unallocated expenditures	Total expenditures
Libraries									
National	1985-86	—	—	—	—	—	38	—	31,859
Public	1986-87	—	—	—	—	—	54	—	36,185
School	1985-86	—	—	—	—	—	—	—	46
University and college	1986-87	—	—	—	—	—	—	—	2
	1985-86	—	—	—	—	—	—	—	41
	1986-87	—	—	—	—	—	—	—	30
	1985-86	—	—	—	—	—	—	—	—
	1986-87	—	—	—	—	—	—	—	1
Total libraries	1985-86	—	—	—	—	—	38	—	31,946
	1986-87	—	—	—	—	—	54	—	36,218

15.1 Federal government total expenditures on culture, by function and province, fiscal years ending 1985-86 and 1986-87 (thousand dollars) (concluded)

Function	Year	Alta.	BC	YT	NWT	National organizations	Foreign	Unallocated expenditures	Total expenditures
Heritage resources									
Museums	1985-86	1,750	1,825	61	58	422	—	—	129,704
	1986-87	937	1,318	11	105	377	1	—	163,425
Public archives	1985-86	238	457	—	—	139	—	—	42,486
	1986-87	177	443	—	—	—	—	—	53,630
Historic parks and sites	1985-86	1	1,037	4,712	—	—	—	—	59,718
	1986-87	345	3,395	3,491	—	—	—	—	53,742
Nature/provincial parks	1985-86	40,723	14,000	—	7,953	—	—	—	156,427
	1986-87	46,592	26,674	3,211	7,267	—	—	—	153,564
Other heritage	1985-86	4,821	2,801	870	1,297	—	—	—	77,499
	1986-87	18,413	37	13	—	46	—	—	118,980
Total heritage resources	1985-86	47,533	20,120	5,643	9,308	561	—	—	465,834
	1986-87	66,464	31,867	6,726	7,372	423	1	—	543,341
Arts education	1985-86	5	—	—	—	2,957	—	—	3,101
	1986-87	7	—	—	—	3,435	—	—	3,723
Literary arts	1985-86	1,453	1,919	185	483	227,329 ¹	21	21	249,333
	1986-87	1,895	2,700	181	493	255,343 ¹	—	264	284,549
Performing arts	1985-86	3,939	7,036	15	2	2,781	30	—	86,010
	1986-87	3,529	6,603	19	2	1,788	—	1,875	89,414
Visual arts and crafts	1985-86	867	1,474	9	282	750	1	26	12,295
	1986-87	1,224	1,512	—	34	818	—	397	13,882
Film and video	1985-86	4,858	4,414	—	15	626	2,889	—	159,189
	1986-87	1,965	4,646	—	240	864	2,624	17	165,339
Broadcasting	1985-86	41,577	46,799	690	16,363	31	2,492	246	1,116,595
	1986-87	40,759	53,920	1,609	19,792	593	348	—	1,166,530
Sound recording	1985-86	—	—	—	—	—	—	—	430
	1986-87	200	40	—	—	138	—	—	3,768
Multiculturalism	1985-86	1,228	1,783	—	—	4,631	—	—	22,693
	1986-87	1,497	2,476	20	64	—	—	5,767	23,614
Multidisciplinary activities	1985-86	5,923 ²	11,755 ³	219	722	1,714	921	292	91,536
	1986-87	5,646 ²	11,331 ³	169	763	5,024	—	3,835	98,389
Other	1985-86	17	117	14	42	1,355	1,384	10	10,367
	1986-87	—	387	—	—	1,442	—	—	18,720
Total expenditures	1985-86	107,400	95,417	6,775	27,217	242,735	7,776	595	2,249,329 ⁴
	1986-87	123,186	115,482	8,724	28,760	269,868	3,027	12,155	2,447,487 ⁴

¹ Includes payments to the Canada Post Corporation for costs associated with publication mailings.

² Includes some grants and contributions given to individuals and/or organizations in the Northwest Territories.

³ Includes some grants and contributions given to individuals and/or organizations in Yukon.

⁴ Includes only extramural (grants and contributions) expenditures by the Canada Employment and Immigration Commission directly related to training and employment development in the culture sector.

15.2 Provincial government total expenditures on culture, by function and province, fiscal years ending 1985-86 and 1986-87 (thousand dollars)

Function	Year	Nfld.	PEI	NS	NB	Que.	Ont.	Man.
Libraries								
National	1985-86	—	—	—	—	4,901	—	—
	1986-87	—	—	—	—	4,799	—	—
Public	1985-86	4,600	1,384	5,994	5,407	22,647	36,660	3,670
	1986-87	4,900	1,439	6,361	5,467	20,839	40,903	3,368
School	1985-86	1,139	794 ^c	4,690 ^c	2,101	26,790 ^c	28,226 ^c	1,350
	1986-87	1,115	826 ^c	4,795 ^c	2,280 ^c	27,645 ^c	29,470 ^c	1,410
University and college	1985-86	4,965 ^c	1,206 ^c	6,771 ^c	4,716 ^c	81,351 ^c	91,678 ^c	13,248
	1986-87	5,891 ^c	1,254 ^c	7,649 ^c	5,399 ^c	87,103 ^c	96,317 ^c	12,821
Total libraries	1985-86	10,704	3,384	17,455	12,224	135,689	156,564	18,268
	1986-87	11,906	3,519	18,805	13,146	140,386	166,690	17,599
Heritage resources								
Museums	1985-86	2,014	752	5,888	1,378	23,879	51,785	4,482
	1986-87	2,205	783	5,712	2,057	27,396	67,571	6,652
Public archives	1985-86	495	120	1,126	859	5,113	1,843	1,314
	1986-87	282	125	1,128	912	5,369	2,028	1,486
Historic parks and sites	1985-86	693	89	928	3,266	19,519	23,525	1,160
	1986-87	527	93	254	2,929	17,453	34,082	389
Nature/provincial parks	1985-86	181	2,244	1,773	—	10,660 ^c	6,296	14,711
	1986-87	220	2,333	1,700	—	11,970 ^c	6,811	13,391
Other heritage	1985-86	—	262	677	294	1,713	6,440	2,056
	1986-87	1	273	509	234	322	6,348	3,153

15.2 Provincial government total expenditures on culture, by function and province, fiscal years ending 1985-86 and 1986-87 (thousand dollars) (concluded)

Function	Year	Nfld.	PEI	NS	NB	Que.	Ont.	Man.
Total heritage resources	1985-86	3,383	3,467	10,392	5,797	60,884	89,889	23,723
	1986-87	3,235	3,607	9,303	6,132	62,510	116,840	25,071
Arts education	1985-86	11	150	5,157	—	11,888	14,382	757
	1986-87	5	157	5,445	—	13,173	14,039	859
Literary arts	1985-86	142	106	139	38	5,785	2,754	623
	1986-87	156	110	113	57	6,051	3,040	726
Performing arts	1985-86	4,648	1,464	1,684	489	36,531	19,412	3,975
	1986-87	4,880	1,522	2,219	1,100	36,119	29,723	5,210
Visual arts and crafts	1985-86	445	18	749	355	6,373	5,959	2,289
	1986-87	466	19	535	559	6,844	6,789	2,915
Film and video	1985-86	9	258	106	4	11,535	1,521	1,717
	1986-87	12	268	381	—	15,087	9,510	1,174
Broadcasting	1985-86	—	—	77	—	71,430	47,126	540
	1986-87	—	—	69	—	67,485	59,980	290
Sound recording	1985-86	—	7	—	—	1,425	66	13
	1986-87	—	7	—	—	3,163	16	15
Multiculturalism	1985-86	—	10	206	14	2,863	9,814	4,530
	1986-87	—	11	176	94	2,313	24,412	3,738
Multidisciplinary activities	1985-86	10	18	1,047	387	10,250	21,790	5,218
	1986-87	3	19	599	37	8,707	23,614	6,047
Other	1985-86	1	58	21	1,421	49,795	2,493	1,024
	1986-87	—	61	603	2,383	35,069	2,965	—
Total expenditures	1985-86	19,353	8,940	37,033	20,729	404,448	371,770	62,677
	1986-87	20,663	9,300	38,248	23,508	396,907	457,618	63,644
		Sask.	Alta.	BC	YT	NWT	Total	
Libraries								
National	1985-86	—	—	—	—	—	—	4,901
	1986-87	—	—	—	—	—	—	4,799
Public	1985-86	7,856	12,112	7,814	734	710	109,588	
	1986-87	7,986	13,542	11,034	1,047	893	117,779	
School	1985-86	4,226	8,825 ^c	10,360 ^c	156 ^c	712 ^c	89,369 ^c	
	1986-87	4,378 ^c	9,118 ^c	10,750 ^c	228 ^c	743 ^c	92,758 ^c	
University and college	1985-86	8,286 ^c	25,473 ^c	41,360	111	168 ^c	279,333 ^c	
	1986-87	8,748 ^c	25,886 ^c	38,360	86 ^c	162 ^c	289,676 ^c	
Total libraries	1985-86	20,368	46,410	59,534	1,001	1,590	483,191	
	1986-87	21,112	48,546	60,144	1,361	1,798	505,012	
Heritage resources								
Museums	1985-86	3,254	22,156	6,439	336	1,005	123,368	
	1986-87	3,585	14,989	12,255	602	1,102	144,909	
Public archives	1985-86	1,029	1,130	1,132	362	219	14,742	
	1986-87	1,010	1,049	2,102	376	245	16,112	
Historic parks and sites	1985-86	522	13,941	2,668	1,838	84	68,233	
	1986-87	435	11,624	3,755	3,040	95	74,676	
Nature/provincial parks	1985-86	13,561	—	14,560	—	—	63,986	
	1986-87	13,435	—	8,501	372	—	58,733	
Other heritage	1985-86	2,189	3,121	2,177	581	255	19,765	
	1986-87	1,204	2,415	1,960	186	306	16,911	
Total heritage resources	1985-86	20,555	40,348	26,976	3,117	1,563	290,094	
	1986-87	19,669	30,077	28,573	4,576	1,748	311,341	
Arts education	1985-86	1,205	—	6,620	9	—	40,179	
	1986-87	943	—	8,025	—	—	42,646	
Literary arts	1985-86	644	1,912	296	2	—	12,441	
	1986-87	981	1,918	274	—	—	13,426	
Performing arts	1985-86	1,698	26,090	3,490	95	70	99,646	
	1986-87	2,749	19,189	9,877	80	—	112,668	
Visual arts and crafts	1985-86	700	2,791	939	21	548	21,187	
	1986-87	1,114	2,845	1,200	128	414	23,828	
Film and video	1985-86	146	1,074	629	—	—	16,999	
	1986-87	216	1,067	491	1	—	28,207	
Broadcasting	1985-86	—	20,377	4,192	6	432	144,180	
	1986-87	—	18,778	4,927	—	327	151,856	
Sound recording	1985-86	72	—	—	1	—	1,584	
	1986-87	—	—	—	—	—	3,201	
Multiculturalism	1985-86	994	3,111	213	—	—	21,755	
	1986-87	1,241	3,370	1,102	18	—	36,475	
Multidisciplinary activities	1985-86	929	20,150	1,197	9	466	61,471	
	1986-87	2,066	20,224	1,098	2	783	63,199	
Other	1985-86	975	816	499	30	—	57,133	
	1986-87	7,768	943	474	173	—	50,439	
Total expenditures	1985-86	48,286	163,079	104,585	4,291	4,669	1,249,860	
	1986-87	57,859	146,957	116,185	6,339	5,070	1,342,298	

15.3 Municipal government expenditures on culture, by function and province, 1985 and 1986 (thousand dollars)

Function	Year	Nfld.	PEI	NS	NB	Que.	Ont.	Man.
Current expenditures ¹								
Libraries ²	1985	7,076	829	14,982	9,554	100,383	226,702	19,364
	1986	7,531	888	15,801	10,631	102,444	249,538	22,244
Museums	1985	—	14	—	274	—	3,575	249
	1986	—	21	4	300	—	4,253	254
Public archives	1985	—	—	—	—	—	79	—
	1986	—	—	—	—	—	212	—
Historic sites	1985	29	—	31	23	—	4,008	236
	1986	2	—	3	26	—	5,660	45
Performing arts	1985	—	142	409	—	—	13,205	195
	1986	—	169	44	—	—	3,301	253
Other	1985	15	10	220	555	15,263	45,640	5,366
	1986	52	26	506	593	48,342	55,211	5,571
Total	1985	7,120	995	15,642	10,406	115,646	293,209	25,410
	1986	7,585	1,104	16,358	11,550	150,786	318,175	28,367
Capital expenditures ³								
Libraries	1985	127	—	128	40	3,033	11,883	118
	1986	129	1	1,099	52	2,846	12,550	210
Museums	1985	—	—	34	200	—	3,285	34
	1986	—	—	34	13	833	5,762	—
Public archives	1985	—	—	—	—	—	—	—
	1986	—	—	—	—	—	100	—
Historic sites	1985	—	—	—	—	—	—	—
	1986	—	—	—	—	—	687	—
Performing arts	1985	—	—	—	—	—	—	—
	1986	—	—	—	—	—	474	1,612
Other	1985	—	—	—	—	927	533	—
	1986	—	—	—	87	—	15,457	255
Total	1985	127	—	162	240	3,960	15,701	152
	1986	129	1	1,133	152	3,679	35,030	2,077
Total expenditures								
Libraries ²	1985	7,203	829	15,110	9,594	103,416	238,585	19,482
	1986	7,660	889	16,900	10,683	105,290	262,088	22,454
Museums	1985	—	14	34	474	—	6,860	283
	1986	—	21	38	313	833	10,015	254
Public archives	1985	—	—	—	—	—	79	—
	1986	—	—	—	—	—	312	—
Historic sites	1985	29	—	31	23	—	4,008	236
	1986	2	—	3	26	—	6,347	45
Performing arts	1985	—	142	409	—	—	13,205	195
	1986	—	169	44	—	—	3,775	1,865
Other	1985	15	10	220	555	16,190	46,173	5,366
	1986	52	26	506	680	48,342	70,668	5,826
Total	1985	7,247	995	15,804	10,646	119,606	308,910	25,562
	1986	7,714	1,105	17,491	11,702	154,465	353,205	30,444
	Year	Sask.	Alta.	BC	YT	NWT	Total	
Current expenditures ¹								
Libraries ²	1985	28,872	46,898	58,600	239	932	514,431	
	1986	30,957	61,605	59,293	297	1,066	562,295	
Museums	1985	1,369	824	4,003	—	—	10,308	
	1986	1,463	1,138	4,219	—	11	11,663	
Public archives	1985	—	—	572	—	—	651	
	1986	—	57	626	—	—	895	
Historic sites	1985	46	—	255	—	—	4,628	
	1986	100	—	172	—	—	6,008	
Performing arts	1985	688	—	7,869	—	—	22,508	
	1986	905	4,458	5,697	—	—	14,827	
Other	1985	3,917	5,811	4,715	19	—	81,531	
	1986	4,197	425	7,720	22	54	122,719	
Total	1985	34,892	53,533	76,014	258	932	634,057	
	1986	37,622	67,683	77,727	319	1,131	718,407	

15.3 Municipal government expenditures on culture, by function and province 1985 and 1986 (thousand dollars) (concluded)

Function	Year	Sask.	Alta.	BC	YT	NWT	Total
Capital expenditures ³							
Libraries	1985	1,059	10,786	2,613	—	10	29,797
	1986	503	7,677	1,305	—	—	26,372
Museums	1985	1,074	403	399	—	—	5,429
	1986	23	251	926	—	—	7,842
Public archives	1985	—	—	—	—	—	—
	1986	—	—	—	—	—	100
Historic sites	1985	—	—	—	—	—	—
	1986	—	—	—	—	—	687
Performing arts	1985	—	—	—	—	—	—
	1986	—	—	2,770	—	—	4,856
Other	1985	40	372	748	—	—	2,620
	1986	—	402	301	—	—	16,502
Total	1985	2,173	11,561	3,760	—	10	37,846
	1986	526	8,330	5,302	—	—	56,359
Total expenditures							
Libraries ²	1985	29,931	57,684	61,213	239	942	544,228
	1986	31,460	69,282	60,598	297	1,066	588,667
Museums	1985	2,443	1,227	4,402	—	—	15,737
	1986	1,486	1,389	5,145	—	11	19,505
Public archives	1985	—	—	572	—	—	651
	1986	—	57	626	—	—	995
Historic sites	1985	46	—	255	—	—	4,628
	1986	100	—	172	—	—	6,695
Performing arts	1985	688	—	7,869	—	—	22,508
	1986	905	4,458	8,467	—	—	19,683
Other	1985	3,957	6,183	5,463	19	—	84,151
	1986	4,197	827	8,021	22	54	139,221
Total	1985	37,065	65,094	79,774	258	942	671,903
	1986	38,148	76,013	83,029	319	1,131	774,766

¹ Current expenditures for 1985 and 1986 are preliminary.

² Also includes the estimated expenditures for school libraries.

³ Capital expenditures for 1985 are revised and for 1986 are preliminary.

15.4 Support to the arts by the Canada Council, 1976-77 to 1985-86 (thousand dollars)

Discipline and program	1976-77	1977-78	1978-79	1979-80	1980-81
Dance	2,569	3,842	4,050	4,602	5,166
Music and opera	7,733	8,012	9,784	9,726	10,386
Theatre	7,818	9,464	8,950	9,535	10,107
Visual arts	3,633	3,884	4,122	4,441	4,627
Media arts: film, video, audio, integrated media ¹	1,531	1,662	1,721	1,887	1,949
Writing and publishing	5,845	6,585	7,563	7,083	7,027
Other disciplines ²	—	95	219	283	401
Art bank purchases	755	693	758	610	644
Explorations program	1,294	1,386	1,461	1,407	1,425
Touring office program	2,027	2,192	2,446	2,221	1,961
Total	33,205	37,815	41,074	41,795	43,693
	1981-82	1982-83	1983-84	1984-85	1985-86
Dance	6,319	7,752	8,223	8,861	8,795
Music and opera	11,490	12,986	13,969	14,599	14,844
Theatre	11,551	13,444	14,178	15,013	14,964
Visual arts	5,783	6,495	7,218	8,044	7,580
Media arts: film, video, audio, integrated media ¹	2,493	3,018	3,189	3,690	3,642
Writing and publishing	8,580	9,791	10,041	10,959	10,903
Other disciplines ²	454	548	620	637	384
Art bank purchases	647	1,021	1,006	968	917
Explorations program	1,671	1,340	2,128	2,352	2,350
Touring office program	2,569	3,154	3,333	3,543	3,599
Total	51,557	59,549	63,905	68,666	67,978

¹ Integrated media started in fiscal year 1982-83.

² Includes multidisciplinary work, performance art and arts administration (this last field has been suspended for fiscal year 1985-86).

15.5 Summary statistics on the performing arts, 1986

Item	Theatre	Music	Dance	Opera
Revenue by source (%)				
Ticket sales	39	28	21	37
Guarantees	6	7	13	2
Ancillary and other income	11	11	7	8
Grants ¹	44	54	59	53
Expenditures by type (%)				
Personnel	56	68	48	50
Publicity and promotion	9	10	11	8
Administration	6	5	4	4
Other production costs ²	18	10	25	22
Other expenses ³	11	7	12	16
Average revenue per organization (\$)	621,938	1,044,007	774,145	2,184,022
Average expenditure per organization (\$)	624,967	1,071,399	789,342	2,245,816
Average surplus (deficit) for season covered (\$)	-3,029	-27,392	-15,197	-61,794

¹ Includes all government grants and private contributions.² Includes royalties and fees paid for commissioned works and other production expenses such as sets, props, costumes and wardrobe.³ Refers to space costs for office, storage, utilities and maintenance, and other expenses such as ticket printing and bar licence.

15.6 Number of responding heritage institutions, by institution type and region, 1985-86

Type of heritage institution	Region					Total
	Atlantic provinces	Quebec	Ontario	Prairie provinces	British Columbia ¹	
Museums						
Community	87	33	157	207	88	572
Art	17	26	72	34	21	170
History ²	19	43	53	51	31	197
Other ³	13	6	18	15	14	66
Total, museums	136	108	300	307	154	1,005
Nature parks	14	16	44	44	14	132
Historic sites ⁴	82	48	97	61	36	324
Archives	32	140	124	39	27	362
Other ⁵	13	45	24	23	18	123
Total, heritage institutions	277	357	589	474	249	1,946

¹ Includes Yukon and Northwest Territories.² Includes fort and military, maritime or marine, human history, archaeology, anthropology or ethnology, natural history or natural science, sports (or halls of fame), and transportation museums.³ Includes multidisciplinary, science and technology and other museums.⁴ Includes historic sites, buildings, parks or communities.⁵ Includes the following: exhibition centres, planetariums, observatories, aquariums, zoos, botanical gardens, arboretums and conservatories.

15.7 National Library growth in titles and loans, 1978-79 to 1987-88

Fiscal year	Legal deposit titles	Interlibrary loan requests ¹	Items listed in Canadiana	
			Calendar year	Number
1978-79	17,852	133,665	1978	28,729
1979-80	16,000	178,772	1979	31,287
1980-81	17,905	173,257	1980	25,775
1981-82	16,356	139,281	1981	19,064
1982-83	17,420	157,710	1982	26,029
1983-84	19,381	160,131	1983	31,888
1984-85	20,586	138,788	1984	36,773
1985-86	22,394	130,253	1985	33,669
1986-87	25,015	136,282	1986	35,701
1987-88	25,331	138,124	1987	38,589

¹ Totals for certain years obtained by extrapolation.

15.8 Summary statistics of public libraries, 1986

Province or territory	Service points ¹	Bookstock ² '000	Circulation '000	Total operating expenditure \$'000	Full-time professional librarians ³
Newfoundland	107	898	1,903	4,706	20
Prince Edward Island	26	208	633	1,409	7
Nova Scotia	85	1,334	4,473	11,058	68
New Brunswick	65	1,267	3,240	6,148	36
Quebec	947	10,680	24,272	72,902	231
Ontario	835	25,140	67,986	227,499	1,140
Manitoba	93	1,944	5,948	16,300	47
Saskatchewan	325	2,615	7,676	21,620	105
Alberta	296	5,917	22,657	44,503	135
British Columbia	292	6,553	28,000	56,536	292
Yukon	10	191	124	693	3
Northwest Territories	20	114	98	995	4
Canada	3,101	56,860	167,010	464,370	2,089

¹ Includes permanent locations and mobile stations.² Books and other materials catalogued as books; does not include periodicals and newspaper titles.³ Total of part- and full-time positions in full-time equivalents.

15.9 National Film Board productions, distribution summary, 1985-86 and 1986-87

Item	Canada	
	1985-86	1986-87
Telecasts, including travel films ¹		
English	8,053	5,012
French	1,584	1,053
Total	9,637	6,065
Theatrical bookings		
35 mm	560	600
16 mm	57	71
Total	617	671
Non-theatrical bookings and rentals, including travel films		
Pacific Region, including Yukon	62,204	53,403
Prairie Region, including NWT	105,236	98,354
National Capital Region	35,376	32,496
Ontario Region	79,411	77,388
Quebec Region	103,663	102,470
Atlantic Region ²	66,733	59,511
Total	452,623	423,622
Videocassette deposit program	8,977	12,794
Videocassette sales	4,407	14,369
16 mm print sales	2,532	1,754
16 mm distribution in Canada by NFB	7,731	4,188
Videocassette distribution in Canada by NFB	10,860	19,528
Total	18,591	23,716
Multi-media products sales	16,887	16,613
New products placed in distribution		
Films	150	193
Multi-media	18	30
The Travel Film Program telecasts ¹	23,334	—
Television, new titles under contract (excluding The Travel Film Program)		
United States	37	—
Europe	838	—
Asia	195	—
Australia and New Zealand	23	—
South America and Central America	23	—
Africa	43	—
Total	1,159	—

15.9 National Film Board production distribution summary, 1985-86 and 1986-87 (concluded)

Item	Canada	
	1985-86	1986-87
Theatrical sales, new titles under contract		
United States	6	8
Europe	197	74
Asia and Australia	15	53
South America and Central America	2	—
Africa	—	—
Total	220	135
Non-theatrical bookings, The Travel Film Program		
United States	49,165	—
Europe	15,318	—
Asia	246	—
Australia and New Zealand	313	—
South America and Central America	142	—
Africa	10	—
Total	65,194	—
Non-theatrical bookings through Canadian diplomatic missions		
United States	5,029	5,344
Europe	26,660	19,682
Asia and Australia	15,256	10,643
South America and Central America	17,590	14,399
Africa	1,949	3,558
Total	66,484	53,626
Non-theatrical 16 mm print sales		
NFB	1,425	899
Distributors	1,916	2,275
Total	3,341	3,174
Non-theatrical videocassette sales		
NFB	899	519
Distributors	—	1,973
Total	899	2,492
Summary of prints placed in distribution abroad	109	1,160
Non-theatrical multi-media product sales	880	526

¹ The Travel Film Program was discontinued in March 1986.

² Activity for the province of PEI, which is a shared library operation between the provincial department of education and NFB, is not included in totals above. NFB bookings in PEI were 1,148 in 1986-87.

15.10 Revenue from the distribution of film and video productions by market, 1980-81 to 1985-86

Market	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Theatrical						
Canadian	2,424	2,958	4,619	5,709	1,401	3,979
Import	112,920	122,780	150,001	133,071	131,093	125,421
Total	115,344	125,738	154,620	138,780	132,494	129,400
Conventional television						
Canadian	7,911	7,666	5,482	5,317	6,382	8,423
Import	95,771	91,864	85,726	94,070	101,756	132,791
Total	103,682	99,530	91,208	99,387	108,138	141,214
Pay/cable television						
Canadian	—	—	—	6,782	1,670	4,708
Import	—	—	9,619	13,280	13,253	21,619
Total	—	—	9,619	20,062	14,923	26,327
Home video						
Canadian	—	—	971	589	890	5,130
Import	—	—	5,256	17,195	42,688	68,631
Total	—	—	6,227	17,784	43,578	73,761

15.10 Revenue from the distribution of film and video productions by market, 1980-81 to 1985-86 (concluded)

Market	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Non-theatrical						
Canadian	2,243	2,329	4,461	3,494	3,190	5,667
Import	15,756	16,089	15,958	14,791	16,191	18,099
Total	17,999	18,418	20,419	18,285	19,381	23,766
Total						
Canadian	12,577	12,953	15,533	21,891	13,533	27,907
Import	224,448	230,733	266,560	272,408	304,981	366,561
Total	237,025	243,686	282,093	294,299	318,514	394,468

15.11 Average prices, admissions and revenues of motion picture theatres, selected years

Year	Number of theatres ('000)		Admission receipts (\$'000)		Number of paid admissions ('000)		Average admission price ¹ (\$)
	Regular	Drive-ins	Regular	Drive-ins	Regular	Drive-ins	
1955	1,950	242	86,374	5,755	184,968	10,688	0.47
1960	1,427	232	65,505	6,790	107,705	10,029	0.61
1965	1,171	247	75,372	9,790	89,135	10,780	0.85
1970	1,156	279	111,692	17,047	80,826	11,489	1.38
1975	1,173	315	182,139	29,283	84,161	12,843	2.16
1980	1,019	283	271,128	40,291	88,980	11,991	3.05
1981	1,033	286	279,219	40,876	84,855	11,200	3.29
1982	983	270	316,741	37,547	87,602	9,663	3.62
1983	899	260	298,411	30,230	78,139	7,658	3.82
1984	856	245	302,124 ^r	26,216 ^r	73,394 ^r	6,156 ^r	4.12
1985	788	219	299,763	23,069	74,942	5,634	4.00

¹ Admission receipts excluding amusement taxes divided by number of paid admissions (regular theatres only).

15.12 Canadian households with communications services, 1981 and 1987

Communications service	1987		1981	
	Number of households ¹ '000	% of total households	Number of households ¹ '000	% change
Television	9,410	98.5	7,887	+ 19.3
Colour	9,020	94.4	6,685	+ 34.9
Black and white	3,106	32.5	3,655	-15.0
Radio (AM and FM)	9,444	98.8	7,934	+ 19.0
Telephone	9,409	98.5	7,870	+ 19.6
Cable television	6,424	67.2	4,553	+ 41.1
Total Canadian households	9,556	..	8,063	+ 18.5

Note: Colour and black and white televisions do not total to equal number of televisions because some households have one or more of both.

¹ Includes households with one or more (TV, radio or phone, according to category).

15.13 Average hours per week of television viewing¹, by age, sex group and province, fall 1987

Age and sex	Nfld.	PEI	NS	NB	Quebec		
					Language ²		Total
					English	French	
Men							
18 and over	24.9	21.6	23.8	23.4	22.6	23.7	23.8
18 to 24	24.5	17.8	19.8	20.1	15.5	19.1	18.8
25 to 34	24.5	20.9	22.5	21.0	20.9	20.7	20.8
35 to 49	22.1	20.0	21.2	21.0	18.6	21.5	21.1
50 to 59	23.1	20.9	25.0	23.8	27.3	25.7	26.1
60 and over	32.2	28.2	32.4	33.0	30.4	37.6	35.8
Women							
18 and over	30.9	25.2	29.1	31.7	27.3	29.7	29.8
18 to 24	26.5	20.2	25.1	25.6	19.7	22.0	21.9
25 to 34	29.9	25.2	28.1	29.7	25.7	27.5	27.3
35 to 49	27.7	22.5	27.2	26.6	25.4	27.6	27.2
50 to 59	31.9	28.4	31.9	37.2	29.3	34.5	34.1
60 and over	40.4	29.9	33.4	41.1	32.7	39.6	38.8
Teens 12 to 17	26.0	18.8	23.6	23.4	17.2	20.5	20.2
Children 2 to 11	28.2	21.7	25.0	25.4	19.4	23.2	22.6
Total population	27.7	22.7	26.0	27.0	23.8	25.8	25.8
	Ont.	Man.	Sask.	Alta.	BC	Canada	
Men							
18 and over	21.3	22.1	21.8	21.1	21.6	22.2	
18 to 24	15.6	18.9	17.0	17.4	14.8	17.2	
25 to 34	19.3	21.6	19.3	19.8	20.1	20.2	
35 to 49	18.6	18.7	19.2	19.4	18.8	19.6	
50 to 59	23.9	22.2	24.5	22.8	22.7	24.2	
60 and over	30.5	28.9	29.7	29.2	31.0	31.7	
Women							
18 and over	25.2	25.7	25.2	24.6	25.0	26.8	
18 to 24	18.2	21.2	21.9	22.0	18.6	20.5	
25 to 34	23.0	23.0	23.4	22.5	23.5	24.7	
35 to 49	21.4	22.2	21.7	21.3	21.0	23.4	
50 to 59	27.8	25.1	23.6	26.0	24.6	29.2	
60 and over	34.2	34.4	32.5	34.6	34.0	35.5	
Teens 12 to 17	18.0	21.6	18.0	17.7	17.3	19.2	
Children 2 to 11	21.1	20.5	20.4	19.4	18.6	21.4	
Total population	22.6	23.2	22.5	21.8	22.2	23.7	

¹ Only at-home viewing is included.² For Quebec, the language classification is based on the language spoken at home. The total column includes those respondents who did not reply to this question or who indicated a language other than English or French.

15.14 Freelance payments, CBC radio and television, fiscal years ended March 31, 1985-86 to 1987-88 (thousand dollars)

Year and item	Atlantic provinces	Quebec	Ontario	Prairie provinces	British Columbia	Northern Service	Radio-Canada International	Total cost
1985-86								
Musicians' fees	685	5,484	5,176	1,789	1,224	14	26	14,398
Union actors, writers and performers	2,994	21,162	16,751	3,503	3,400	213	177	48,200
Other actors, writers and performers	1,969	1,643	25,568	5,319	2,748	477	151	37,875
Talent payroll	5,648	28,289	47,495	10,611	7,372	704	354	100,473
Royalty payments to authors', composers' and musicians' associations	384	1,015	719	502	291	—	—	2,911
Other production fees and performing rights (special events and news)	1,151	24,375	26,874	766	601	—	160	53,927
Total	7,183	53,679	75,088	11,879	8,264	704	514	157,311
1986-87								
Musicians' fees	510	5,767	5,203	1,602	1,201	13	28	14,324
Union actors, writers and performers	2,581	20,629	17,507	3,845	3,338	210	201	48,311
Other actors, writers and performers	2,293	2,130	30,539	5,932	2,971	399	208	44,472
Talent payroll	5,384	28,526	53,249	11,379	7,510	622	437	107,107
Royalty payments to authors', composers' and musicians' associations	638	1,685	1,149	833	484	—	—	4,789
Other production fees and performing rights (special events and news)	1,721	27,226	26,631	398	—	—	—	55,976
Total	7,743	57,437	81,029	12,610	7,994	622	437	167,872
1987-88								
Musicians' fees	574	5,617	5,659	1,764	1,109	10	47	14,780
Union actors, writers and performers	3,416	19,833	15,954	3,992	3,153	285	21	46,654
Other actors, writers and performers	2,761	1,550	33,106	6,225	2,808	448	151	47,049
Talent payroll	6,751	27,000	54,719	11,981	7,070	743	219	108,483
Royalty payments to authors', composers' and musicians' associations	844	2,235	1,520	1,102	640	—	—	6,341
Other production fees and performing rights (special events and news)	1,010	34,040	42,384	616	114	—	—	78,164
Total	8,605	63,275	98,623	13,699	7,824	743	219	192,988

15.15 New releases, by Canadian-content¹ and musical category, 1984-86²

Year and musical category	Canadian-content recordings		Non-Canadian-content recordings	
	Singles	Albums ³	Singles	Albums ³
1984				
Adult-oriented popular music	154	83	133	233
Top 40 or rock-oriented music	205	157	773	1,267
Classical	2	79	4	381
Jazz	1	22	49	180
Country and folk	104	65	179	198
Children's	46	35	—	13
Other	16	47	8	231
Total	528	488	1,146	2,503
1985				
Adult-oriented popular music	94	57	147	307
Top 40 or rock-oriented music	208	135	875	1,241
Classical	4	71	5	225
Jazz	10	18	83	227
Country and folk	46	69	220	267
Children's	44	51	22	23
Other	5	33	27	351
Total	411	434	1,379	2,641
1986				
Adult-oriented popular music	47	30	160	326
Top 40 or rock-oriented music	174	99	804	1,353
Classical	—	60	1	265
Jazz	1	20	6	364
Country and folk	59	41	225	212
Children's	1	20	1	43
Other	5	52	15	297
Total	287	322	1,212	2,860

¹ "Canadian-content" refers to criteria specified by the CRTC. A record must have some combination of any two of the following characteristics: the record was produced in Canada; the lyrics were written by a Canadian; the music was composed by a Canadian; the featured performer is a Canadian.
² The number of firms declaring releases, 1984-86: 1984 = 114, 1985 = 84 and 1986 = 70.
³ Includes cassettes and compact discs.

15.16 Participation in recreational activities¹

Activity	Persons 10 years and over ²		Activity	Persons 10 years and over ²	
	'000	%		'000	%
Walking	11,861	57	Popular dance	2,610	13
Bicycling	7,838	38	Baseball	2,285	11
Swimming (pool)	7,498	36	Downhill skiing	2,244	11
Jogging, running	6,456	31	Ice hockey	1,958	9
Gardening	6,183	30	Bowling	1,717	8
Home exercises	5,832	28	Exercise classes	1,641	8
Ice skating	4,330	21	Racquetball	1,227	6
Cross-country skiing	3,631	18	Curling	999	5
Tennis	3,050	15			
Golf	2,623	13	Total participants	20,718	100

¹ *Fitness and Lifestyle in Canada*, 1981 Canada Fitness Survey.
² Participating at least once in 12 months preceding the survey.

15.17 Selected activities of Canadian travellers, 1986

Activity	Person-trips ¹ '000	Activity	Person-trips ¹ '000
Visit friends or relatives	59,600	Visit national, provincial or regional park	7,948
Shopping	34,362	Attend sports events	5,580
Sightseeing	12,285	Swimming	12,185
Festivals or events	5,676	Other water sports	6,431
Attend cultural events	4,258	Hunting or fishing	7,506
Nightlife, recreational activities	12,893	Cross-country skiing	1,062
Visit zoo, museum, natural display	5,775	Downhill skiing	2,142
		Other	1,370

¹ Travel by residents of Canada on trips of 80 km or more with destinations in Canada.

Sources

15.1–15.3, 15.5, 15.6, 15.8, 15.10–15.13, 15.15, 15.17 Education, Culture and Tourism Division, Statistics Canada.

15.4 Communications Service, The Canada Council.

15.7 Library Documentation Centre, National Library of Canada.

15.9 Communications Branch, National Film Board of Canada.

15.14 Public Affairs, Canadian Broadcasting Corporation.

15.16 Promotion and Communications, Fitness and Amateur Sport.

CHAPTER 16

MANUFACTURING

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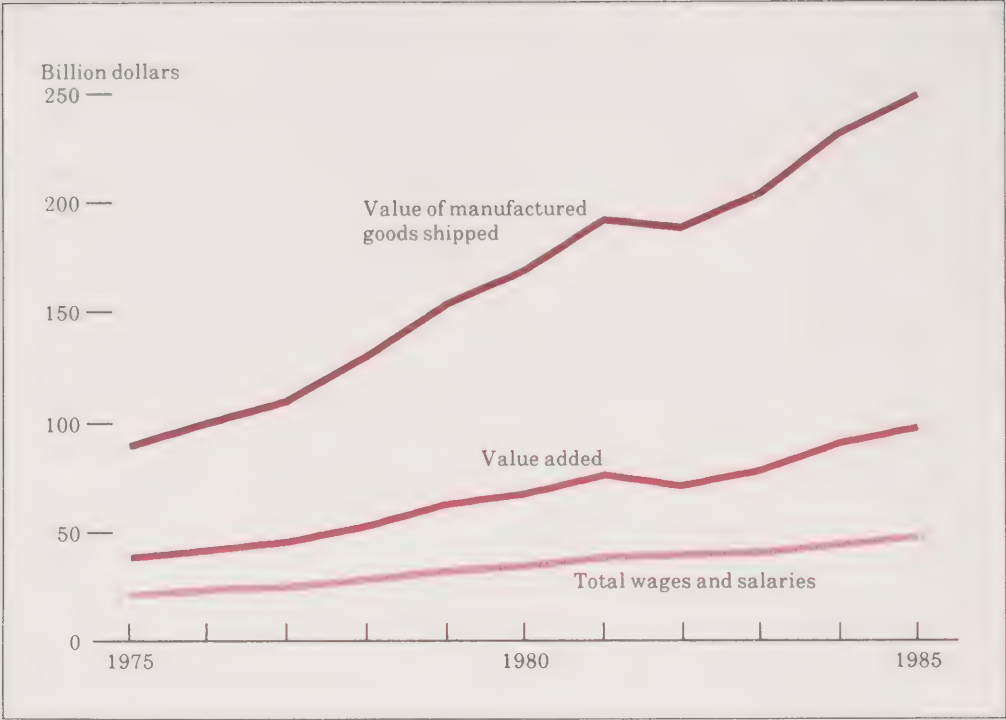
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MANUFACTURING TRENDS

The aggregate value of all shipments of goods of own manufacture rose 8.0% between 1984 and 1985. The main source of this growth came from metal products and heavy equipment areas. In 1985, the strongest growth over 1984 shipment totals at the provincial level were seen in Alberta with an increase of 12.5% , followed by British Columbia with 10.5%, Manitoba at 10.2% and Ontario with 8.4%.

CHAPTER 16

MANUFACTURING

16.1 Statistical highlights

The economic recovery of recent years continued in the manufacturing sector in 1985, although at a more modest rate than in 1984. The aggregate value of all shipments of goods of own manufacture reported by manufacturing establishments for the year 1985 came to \$248.8 billion, up 8.0% from \$230.2 billion in 1984. This year-over-year increase compares with gains of 13.2% and 8.3% in 1984 and 1983, respectively; all based on current dollars.

16.1.1 Major industry groups

Analyzing the 1985 growth of 8.0% by its component industry groups, it is noted that the main source of this strength lay in the metal product and heavy equipment areas. The electrical and electronic products group showed the strongest performance with a 14.7% rise to \$13.5 billion, while fabricated metal products were ahead 14.6% to \$14.0 billion, and the very large transportation equipment group gained 13.9% over the preceding year to \$43.2 billion. Other areas of strength, with gains of 10% or more, were furniture and fixtures, up 12.5% to \$3.4 billion; non-metallic minerals, up 12.1% to \$5.9 billion; wood industries, up 11.5% to \$11.1 billion; printing and publishing, up 10.1% to \$9.5 billion; and plastic products, with a rise of 10.0% to \$3.9 billion.

The weakest performers in 1985 included the primary textiles group, which posted the only decline, easing 2.2% to \$2.7 billion; while rubber industries grew by only 1.9% to \$2.6 billion; and leather products managed a 3.0% gain to \$1.3 billion.

16.1.2 Provincial highlights

Tracing the strongest growth areas back to the provincial level, the 14.7% increase in shipments of electrical and electronics products was mainly attributable to some remarkable gains in the smaller producing provinces. While Ontario, with over 64% of the national total, rose 13.3% and Quebec, with 26% of the market, gained 13.9%,

the provinces with the smaller portion of the national total, which combined accounted for 9.3%, pulled the national growth rate above the 14% mark. Among the more spectacular of these gains were the following (with market share in brackets): Saskatchewan, up 72.7% (1.3%); Alberta, up 34.7% (2.3%); Nova Scotia, up 30.7% (0.5%); and British Columbia, up 20.8% (2.3%).

The 14.6% increase in the fabricated metal products group was attributed to a 15.8% gain in Quebec which accounted for 27% of the national total shipments and a 27.1% jump in Alberta, on less than 6% of the national volume; backed up by a solid 14.0% rise in Ontario, where 57% of the Canadian total shipments took place.

The transportation equipment group was dominated by the road motor vehicle industries (including parts manufacturers) which accounted for 87.5% of the group's shipments in 1985. With road vehicle industries concentrated in Ontario, the province accounted for 83.0% of the Canadian total shipments for this group. Quebec accounted for 11.9%; British Columbia for 2.0%; the remaining 3.1% of the national total was attributable to the other seven provinces. Among the three top producing provinces, Quebec rose 19.3%, British Columbia gained 18.3%, and the dominant province of Ontario recorded a 13.8% increase.

Comparing the overall performance of the provinces in the manufacturing sector, the strongest growth in the shipments of all manufacturing industries was recorded by Alberta with a strong increase of 12.5%, followed by British Columbia, up 10.5%; Manitoba gained 10.2% and Ontario rose 8.4%, over the 1984 shipment totals. The Northern Territories actually had a higher percentage gain at 14.6% but on a relatively small shipment volume. The weakest performers were the Maritime provinces; Nova Scotia gained only 0.9%, followed by Prince Edward Island, up 2.7% and New Brunswick, with an increase of 3.7%. For Nova Scotia, this was a sharp turnaround from 1984 when it led all provinces in shipment growth. The main contributors to this weakness

were the chemical and transportation equipment groups which recorded significant declines in 1985.

Analyzing the shifting distribution of manufacturing activity across the country, the following percentages show a growing concentration in Ontario and in the two most westerly provinces. The proportions of the Canada total accounted for by the leading manufacturing provinces in 1985 were as follows (with comparable 1984 and 1983 percentages in brackets); Ontario 53.1% (52.9%, 51.1%); Quebec 24.4% (24.8%, 25.6%); British Columbia 8.0% (7.8%, 8.4%); Alberta 6.9% (6.6%, 6.8%); and Manitoba 2.2% (2.2%, 2.4%). Table 16.1 provides additional analytical detail.

16.2 Federal services to business

16.2.1 Industry, Science and Technology Canada

Industry, Science and Technology Canada, (ISTC), established in May 1988, has a mandate to act in full partnership with the private sector, the science community and other levels of government to promote international competitiveness and industrial excellence in Canada; to renew and rebuild Canada's scientific, technological, managerial and production base; and to bring together in a concerted way the talents required to guarantee Canada's place in the first rank of industrial nations. The focus of ISTC policy development, program and service delivery, and its advocacy role inside and outside government can be summed up as building competitiveness.

The department's business and industry related programs are based on a three-pronged approach that includes support for strategic technologies, industry sector competitiveness initiatives, and business information and development services.

Strategic technologies, including information technology, biotechnology and advanced industrial materials, are essential for Canada's competitiveness and future prosperity. In co-operation with the private sector and universities, the department provides support to help industry develop, acquire or apply these technologies. In particular, firms are encouraged to make alliances and create networks, thereby sharing the costs and risks of accelerating the development and application of these technologies.

Sector competitiveness initiatives are carried out in co-operation with industry and other departments. Industry, Science and Technology Canada develops individually tailored action plans to assist industry sectors to become more internationally competitive. Depending on the needs of individual sectors, initiatives could include

export promotion drives, selective investment promotion, and technology applications for new and enhanced products.

Business information and development services include: provision of information and data bases for business marketing needs and opportunities; assistance to entrepreneurs to search out, acquire and implement foreign technology which could usefully be applied to their businesses; and other services aimed at helping companies improve their competitive position.

The department's science related activities include meeting the federal responsibilities under the National Science and Technology Policy, and administering InnovAction, the Canadian Strategy for Science and Technology.

InnovAction initiatives include the federal microelectronics strategy, the Canadian Manufacturing Advanced Technology Exchange (CAN-MATE), the national network of centres for excellence, the Canada scholarships program, funding for the university research granting councils and a public awareness of science and technology programs.

Responsibilities for regional development in Atlantic and Western Canada have been given to the Atlantic Canada Opportunities Agency and the Department of Western Economic Diversification, respectively. Industry, Science and Technology Canada retains responsibility for federal regional economic development programs and activities in Ontario and Quebec. These responsibilities are executed by separate offices established for this specific purpose within the department.

Underlying all its activities is the department's function as the chief advocate, within government, for Canada's business and scientific communities. The department advocates on behalf of the business and science communities in areas such as taxation and regulation.

All of the department's programs and activities are based on frequent and extensive consultation with the private sector, the science community, other levels of government, and other interested Canadians.

In order to contribute to the sound development and competitiveness of Canadian industries and sectors and foster the expansion of trade, ISTC pursues the following objectives: to promote the establishment, growth, and efficiency of manufacturing, processing, service, and tourism industries; to assist investors in the location of industries; to provide support services for industrial and trade development; to promote the application of advanced technology; to assist

industry to adapt to changing conditions in domestic and export markets by rationalizing and restructuring; to promote the optimum development of income from tourism; to develop and carry out programs and projects to foster the expansion of small business; to enhance the regional industrial benefits accruing to Canada from major development undertakings; to collect, collate, and disseminate up-to-date information on industrial performance, growth opportunities and obstacles to growth in all regions; and to co-ordinate and evaluate federal economic development plans and strategies in Ontario and Quebec.

16.2.2 Machinery program

This program is an industrial development incentive with a twofold objective. It encourages machinery manufacturers to derive optimum benefit from the tariff on machinery and enables machinery users to acquire advanced production equipment at the lowest possible cost.

The program assists Canadian machinery manufacturers by ensuring tariff protection on the machinery and equipment they produce as soon as they are able to supply. Direct contacts between machinery producers and users encourage the purchase of Canadian-made machinery instead of imported equipment. Machinery users benefit from remissions of duty under the program in terms of reduced cost for the purchase of advanced production equipment not obtainable in Canada.

16.3 Federal protection and standards

16.3.1 Patents and trade marks

The intellectual property directorate, a part of the corporate affairs bureau of Consumer and Corporate Affairs Canada, administers legislation covering patents, trade marks, copyright and industrial design.

Patents. Patents for inventions are issued under the provisions of the Patent Act (RSC 1970, c.P-4; 1984 c.1) and the patent rules. An amended Patent Act was passed by Parliament in November 1987. Most of the amendments were phased in during 1989. The old Act provides that patents are granted for 17 years from their date of issue. Under the new Act, they will come into force on their date of issue and expire 20 years after filing (earlier if maintenance fees are not paid). Applications for patents for inventions and requests for information about such patents should be addressed to: Commissioner of Patents, Ottawa-Hull K1A 0C9.

By March 31, 1988, the patent office had issued over 1.2 million patents which are classified by subject matter so that they can be searched easily.

Paper copies of Canadian patents issued before 1948 may be purchased from the Commissioner of Patents. Patents issued after January 1, 1948 are available from Micromedia Ltd., Hull, Que. J8X 3X2. Microfiche copies of all Canadian patents are available from Micromedia Ltd. The official journal of the patent office, the *Patent office record*, is published weekly and contains information about all patents issued during that week. It is available from the Canadian Government Publishing Centre, Supply and Services Canada, Ottawa K1A 0S9.

The patent office has a public search room holding many journals, textbooks and reports, as well as the patents of other countries including the United States, Great Britain, France, Japan and the Federal Republic of Germany.

Trade marks. Trade marks are registered under the provisions of the Trade Marks Act and the trade mark rules. Applications for registration of a trade mark should be sent to the Registrar of Trade Marks, Ottawa-Hull K1A 0C9.

Applications are examined for compliance with the requirements of the Trade Marks Act and rules and, if found acceptable, are advertised in the *Trade marks journal*. There is a 30-day period after advertisement in which anyone can oppose the registration of a trade mark. A trade mark registration lasts for 15 years and can be renewed for further periods of 15 years.

The *Trade marks journal*, published weekly, is available from the Canadian Government Publishing Centre, Supply and Services Canada, Ottawa K1A 0S9. The Trade Marks Office has a public search room which contains details on all registered trade marks.

Copyright. Copyright is registered under the provisions of the Copyright Act and rules. On June 8, 1988, Phase I amendments to the Copyright Act received Royal Assent. Those amendments not yet in force will be phased in at a later date. Applications for registration and requests for information should be sent to: Copyright and Industrial Design Branch, Consumer and Corporate Affairs Canada, Ottawa-Hull K1A 0C9.

Copyright generally lasts for the life of the creator plus 50 additional years.

16.3.2 Industrial design and timber marks

Industrial designs are registered under provisions of the Industrial Design Act and rules. An industrial design is any original shape, pattern or ornamentation applied to an article made by an

industrial process. An industrial design registration gives protection of an initial period of five years and can be renewed for a further period of up to five years. The protection given by a registered industrial design prevents anyone other than the owner from using that design in Canada during the life of the registration. There is a public search room in Hull, Que. where all previously registered designs can be searched.

Applications for registration or requests for information should be sent to: Copyright and Industrial Design Branch, Bureau of Corporate Affairs, Consumer and Corporate Affairs Canada, Ottawa-Hull K1A 0C9.

Individuals or companies floating timber on the inland water of Ontario, Quebec and New Brunswick must, under the Timber Marking Act, select a mark or marks for the timber and apply for the registration of such marks within one month of engaging in this business.

16.3.3 Standards Council of Canada

This Crown corporation, with headquarters in Ottawa, is the national co-ordinating body responsible for promoting voluntary standardization in Canada. The Standards Council promotes the development and use of standards as a means of advancing the economy, benefiting the health, safety and welfare of the public, facilitating domestic and international trade and furthering international co-operation in the field of standards.

To carry out its mandate the Council created the National Standards System, a federation of organizations accredited by the Council to answer Canada's standards requirements in the fields of standards writing, certification and testing.

The objects of the Council are to foster and promote voluntary standardization relating to the construction, manufacture, production, quality performance and safety of buildings, structures, manufactured articles and products and other goods.

Both Canadian and overseas standards users are served by the Council's standards information service which answers inquiries pertaining to national, foreign and international standards, certification systems and technical regulations.

In the international field, the Council appoints members and directs activities of the Canadian national committee of the International Electrotechnical Commission (IEC) and is the member body for Canada in the International Organization for Standardization (ISO). The Council is responsible for Canada's participation in the work of these international standards-writing bodies, co-ordinating some 2,500 volunteers. It is also the

Canadian sales outlet for the international standards of IEC and ISO, and foreign national standards.

16.3.4 Trade standards and regulations

In its consumer program, Consumer and Corporate Affairs Canada is responsible for administration of broad legislation affecting the marketplace. Policies and programming are determined by the consumer affairs bureau of the department.

Hazardous products. The product safety branch administers the Hazardous Products Act. The Act makes specific mention of products designed for household, garden or personal use, for use in sports or recreational activities or for use by children. It also mentions without reference to end use, poisonous, toxic, flammable, explosive and corrosive products. The Minister is empowered to establish mandatory standards; these include a ban on the use of small parts in infants' toys, flammability standards for textiles and a requirement for warning labels on dangerous chemicals. Regulations governing playpens, rattles and cribs are designed to protect children, and other rigid specifications cover such products as hockey helmets, glazed ceramics and cellulose insulation.

General commodity field. The Consumer Packaging and Labelling Act and regulations administered by the consumer products branch are designed to give uniformity to packaging and labelling practices in Canada, reduce the possibilities of fraud and deception in packaging and labelling, and control the undue proliferation of package sizes. The legislation applies to most pre-packaged consumer products and came into effect in September 1975 for non-food items and in March 1976 for foods.

Regulations under the Textile Labelling Act, in effect since December 1972, require labels on all consumer textile articles. The label must include fibre names and percentages and the identification of the dealer. The regulations also deal with misrepresentation in both labelling and advertising. The textile care labelling system of coloured symbols recommending proper care for textile products is a voluntary program. The Canada Standard size system for children's garments, developed by the Canadian General Standards Board in conjunction with Consumer and Corporate Affairs Canada, is administered under the National Trade Mark and True Labelling Act. This system is also voluntary, although dealers must conform to the standard size before using the Canada Standard size logo on a product.

Control of marking articles of precious metal is maintained under the Precious Metals Marking Act. The regulations came into force in July 1973.

16.4 Provincial assistance to manufacturing

Newfoundland. The manufacturing sector of Newfoundland's economy accounts for 8% of the gross domestic product at factor cost. The total value of manufacturing shipments totals more than \$1 billion annually. Export manufacturing activities are concentrated in the areas of fish processing, newsprint and non-metallic mineral production.

Traditionally, the manufacturing industry has been directed toward the primary processing of raw materials for export, with almost one half of these exports originating in the seafood industries. Secondary and tertiary industrial efforts have made a rapid and significant impact on the province's manufacturing sector and cover a wide range of goods and services.

The development phase of offshore oil and gas offers significant manufacturing investment opportunities including steel fabrication facilities; marine technology and hardware; and telecommunications and marine navigation technology.

The province is also interested in attracting energy-intensive processing and manufacturing enterprises and can offer competitive power to industrial clients. Manufacturing is supported by a number of industrial parks and conveniently located incubator malls which can facilitate small to medium-sized manufacturing and high technology business.

A number of development programs are available which offer assistance and encourage establishment and expansion of manufacturing, processing and servicing activities.

Prince Edward Island. The primary objective of the Prince Edward Island Development Agency is to identify and develop economic opportunities through programs that stimulate economic development and long-term employment. Through the agency, various assistance programs are offered to manufacturers, processors and related service industries. The equity investor's incentive provides cash rebates of 20% to 30% to investors purchasing up to 49% of voting shares of start-up companies. Term loans for buildings, equipment, improvements, and start-up costs are available to new companies for up to 75% or in the case of expansion, up to 100%, with terms up to 20 years. Through the industrial mall

program the agency rents industrial units, ranging in size from approximately 37 m² to 3066 m², in the industrial parks in the Charlottetown and Summerside areas. Outside of these areas, the rental incentive program provides annual rental subsidies to manufacturing and processing industries. Serviced land is also for sale for constructing industrial facilities in the West Royalty Industrial Park (a suburb of Charlottetown) or in the Summerside Area Industrial Park.

The agency also encourages development and expansion of markets for the Island's natural and manufactured products. In doing so, it provides both technical personnel and financial assistance to producers, processors and manufacturers with an interest in the development of new or the marketing of existing products. It also co-ordinates the planning and implementation of marketing projects sponsored by the province.

Nova Scotia. The Department of Small Business Development operates six small business service centres in each region of the province that provide "one-stop shopping" for the Nova Scotia business person interested in financial assistance or guidance. Two of the programs offered, of interest to the industry and manufacturing sector, are: the rural industry program which offers a maximum grant up to \$7,500 on maximum capital expenditures of \$30,000 per project — businesses eligible include manufacturing, processing and services; and the women entrepreneurs' program which offers a maximum grant of \$1,500 and is available to a female business owner, or key employee of a female owned business, excluding professional services, non-profit operations or temporary operations. A grant may be approved for the cost of market research, trade show participation, technology transfer visits, or financial/bookkeeping courses. The cost of child care while attending the above is an eligible expense.

Two agencies which may offer assistance are the Nova Scotia Business Capital Corporation and the Small Business Development Corporation. The Nova Scotia Business Capital Corporation's mandate is to encourage business development in the province, including a tourism or tourism-related business, thereby promoting business growth and employment opportunities by making available financial and other forms of assistance to the business community. The general eligibility criteria for the programs of the Business Capital Corporation include: 50 or more employees; annual sales volume of \$3 million, or greater; and a request for financial assistance in excess of \$250,000 in the instance of loan assistance.

The small Business Development Corporation offers term loans, up to \$250,000, to small businesses wishing to start up, expand or modernize. Loans can be used for the purchase of land, buildings, equipment and other fixed assets. Loans are not available for refinancing of receivables or inventories. The general eligibility criteria include: firms with less than \$3 million in annual sales; and fewer than 50 employees. Priority is given to those enterprises which create new jobs.

New Brunswick. The Commerce and Technology Department is responsible for developing manufacturing and processing and for selected service sectors. Its aims are to continue to build a strong industrial base through the development of local entrepreneurs and local firms in all areas; to diversify the industrial base through the promotion of new investment from outside the province and the introduction of new technology and products; and to provide the necessary infrastructure required for economic development.

A financial programs branch makes recommendations on applications for funds to industries to establish in the province or to expand; administers the regional economic development program; and is responsible for capital expenditures in provincial industrial parks. An industrial development branch is responsible for attracting new industries to New Brunswick; the provision of management, technical and marketing services to industry; the development of new or expanded markets; and the development of the maximum local processing of provincial resources. A science and technology secretariat is responsible for provincial co-ordination, stimulation and policy establishment in science and technology as well as departmental policy, planning and federal-provincial activities. A departmental resources and administrative services division is responsible for the budget and for accounting, human resources, information, communications and research. It also administers department-owned properties and assets. An innovation centre helps New Brunswick's entrepreneurs, innovators and inventors commercialize new technologies.

Three agencies report to the commerce and technology minister. A New Brunswick industrial development board recommends financial assistance to manufacturers or processors, normally through a direct loan or loan guarantee. Terms and conditions are subject to individual negotiation but specifically require the applicant to provide reasonable equity and security. Provincial Holdings Ltd., a Crown corporation, administers the province's equity position in

various companies. This agency is prepared to take an equity position in manufacturing industries wishing to locate in New Brunswick. A Research and Productivity Council (RPC) provides technical support services for New Brunswick industry. RPC carries out research and problem-solving on a cost-recovery basis for clients in Canada and abroad. An industrial engineering service and free technical information are made available to NB (and PEI) companies by RPC in co-operation with the National Research Council.

Quebec. The government of Quebec offers a wide range of programs and services designed to promote business growth in the province. The Société de développement industriel (SDI) provides financial assistance, in the form of an unsecured loan of up to 35% of the total investment, to investors wishing to set up a new business. However, as a premium to offset the risk incurred, the SDI requires an option to purchase part of the company's stock. Established businesses may also qualify for SDI assistance to expand or diversify production, initiate research and development projects or find new markets.

Two other Quebec government agencies, the Centre de recherche industrielle du Québec (CRIQ) and the Agence québécoise de valorisation industrielle de la recherche (AQVIR), encourage businesses to adopt innovative development strategies. Businesses pursuing this goal can also take advantage of the scientific employment support program operated by the Ministry of Industry, Trade and Technology (MITT) to expand their scientific and technical staff. Hydro-Québec also has a program promoting conversion from fossil fuels to electricity in applications where the latter is more energy efficient.

In addition, the Ministry of International Affairs (MIA) offers a number of programs and services to promote foreign trade, supplementing the efforts of the SDI in this area. It provides assistance in assessing export opportunities, identifying potential markets and developing strategies for penetrating export markets. In certain cases, appropriate financial assistance is also provided. The MIA co-ordinates participation by Quebec businesses at international exhibitions and conducts group missions to promote product sales and facilitate the negotiation of distribution and industrial agreements. In addition, the MIA provides assistance for hosting foreign buyers visiting Quebec to sign commercial agreements. In their efforts to penetrate foreign markets, exporters can count on the support of a qualified team of economic advisors posted in 17 cities on four continents.

MITT business assistance programs are geared primarily to meeting needs in the area of management skills. The ministry offers a variety of training sessions dealing with the major aspects of business management. It operates the PRO-PME financial assistance program, which underwrites a portion of the cost of implementing a management tool or hiring a CEGEP or university graduate on a permanent basis. Finally, the MITT makes available, to small businesses, the services of a team of specialists in various business operations, and encourages and assists young people wishing to set up their own businesses.

In addition to this technical and financial assistance, the Quebec government also offers a number of tax incentives designed to promote industrial activity. For example, since 1986 new businesses have been exempt from taxes on profits and the tax on capital for the first three taxation years. These exemptions apply respectively to the first \$200,000 of taxable income earned each year and to the first \$2 million of paid-up capital. Research and development expenditures also enjoy favoured tax treatment, as follows: deductibility of all research and development expenditures from taxable income, refundable tax credit on salaries paid in Quebec for business research and development activities, an additional credit when the research is performed by a university, and a two-year exemption from provincial personal income tax for foreign researchers who join a Quebec firm.

The government of Quebec also provides businesses with ready access to public funding by granting tax exemptions to individuals who invest in Quebec companies through the Régime d'épargne-actions du Québec (REA), the Régime d'investissement coopératif (RIC), the Sociétés de placement dans l'entreprise québécoise (SPEQ) and the Fonds de solidarité des travailleurs du Québec.

Ontario. The Ontario Ministry of Industry, Trade and Technology accelerates introduction and application of new manufacturing technology; assists in product innovation and commercialization of new products and processes; promotes investment, both domestic and foreign; draws more companies into exporting; supports trade through international offices, trade shows, missions and the trade expansion fund; promotes and assists the formation of small businesses and encourages expansion of the domestic market by identifying domestic sources of supply; and supports the growth of productive and stable employment in consultation and partnership with the private sector.

The Premier's Council was formed in April 1986 to assist the Ontario government in developing long-term programs for the province's economic development. Chaired by the Premier, the Council is composed of leading representatives of the business, labour, and academic communities, as well as a number of government ministers.

The Council meets approximately 10 times annually to discuss ways of improving the development and use of new technology, strengthening the province's existing industrial base and improving the skills of Ontario's workforce. The Council has initiated a number of programs to enhance the province's abilities in the fields of advanced research, industrial innovation, labour adjustment, and entrepreneurship. In addition, the Council has also undertaken a broad study on the competitiveness of Ontario industry and the capabilities of the province's educational and science infrastructure entitled *Competing in the New Global Economy*.

The ministry arranges for Ontario participation at trade fairs and exhibitions, organizes trade missions and business opportunity missions, conducts seminars, supplies information on agents and distributors and works closely with trading houses.

The Ontario International Corp. (OIC) is a marketing agency for the government in Ontario. It explores world market opportunities for private sector service industries and co-ordinates public sector input in the development of major capital projects abroad. OIC is not a funding agency. It offers marketing and advisory services to Ontario engineers, consultants, architects, contractors and management consultants.

The Ontario Development Corporation (ODC), Northern Ontario Development Corporation (NODC), and Eastern Ontario Development Corporation (EODC) offer a variety of financial assistance programs for capital projects undertaken by secondary manufacturing industries, selected service industries and tourist operations. Assistance is also offered to Ontario-based exporters experiencing working capital problems when selling to foreign countries.

Through the New Ventures Program, guarantees to a maximum of \$15,000 are offered to any new business, including businesses in the service sector.

Innovation Ontario Corporation (IOC) provides an array of pre-venture equity financing for new or existing companies involved in the development of technology based products, processes and services.

The ministry's small business service sector and capital projects division provides services which support the start-up and growth of Ontario small businesses, develops policies and programs to enhance the service sector, undertakes business development initiatives on an industry sector basis and reviews potential financial support for larger-scale industrial development projects.

The ministry acts as a catalyst in creating joint ventures, licensing agreements between foreign manufacturers and Ontario companies and attracting new investment.

The ministry has 19 field offices in Ontario and international offices in Chicago, Dallas, Atlanta, New York, Los Angeles, Boston, Hong Kong, Paris, Tokyo, Frankfurt, London, England, Singapore, Seoul, New Delhi and Jiangsu, China.

Manitoba. The Manitoba Department of Industry, Trade and Tourism is the lead agent for economic development planning and co-ordination of economic development activities with other agencies.

The department is composed of four divisions: industry, trade, technology and tourism. The industry and trade division promotes capital investment in Manitoba industry; provides financial support; negotiates with federal authorities; and promotes the export of Manitoba goods and services. The technology division consists of industrial, aerospace and information technology programs, as well as the Manitoba research council, which provides product testing and development facilities, and advises the government on new technological developments. The tourism division promotes Manitoba as a travel destination, provides tourism information and operates information centres around the province. It markets Manitoba's events and attractions, facilitates the development, expansion and modernization of attractions and facilities, and manages the Canada/Manitoba Tourism Development Agreement, designed to encourage internationally competitive tourism facilities, events and attractions. The agreement is cost-shared equally between the two governments.

The department also provides services and assistance through regional economic development initiatives, business consultation services and financial programs.

Saskatchewan. The Department of Trade and Investment facilitates: the maintenance and expansion of exports from Saskatchewan to other provinces of Canada and to international markets; the diversification, by market and product, of Saskatchewan exports; increased inflows of investment from outside the province, either

through direct foreign investment, portfolio investment in Saskatchewan-controlled businesses, or through joint ventures between Saskatchewan-controlled firms and firms based outside the province; and the development of investment projects that will increase the export base of the province.

Saskatchewan exporters and companies with the potential to export goods or services are assisted by the department with export consulting services and market development programs, including fairs, missions, incoming buyers, seminars and market research. Strategically placed international offices in Hong Kong, New York and London complement these activities and enhance the department's ability to deliver timely and accurate information to its Saskatchewan clients.

In addition, the department undertakes research to identify markets for Saskatchewan products.

The department represents the province on all trade-related matters, including bilateral and multilateral trade negotiations such as the General Agreement on Tariffs and Trade (GATT) and the Canada-United States Free Trade Agreement. It also represents the province and defends Saskatchewan interests in trade disputes which may have implications for Saskatchewan businesses.

The Trade Opportunities Program gives Saskatchewan exporters financial assistance to hire college marketing graduates to assist in developing new foreign markets for their products and services. The program provides 50% of the new employee's salary and export travel expenses, to a maximum of \$13,000 and \$5,000 a year, respectively, for a period of two years.

The department identifies investment opportunities and attempts to find sources of equity investment, with the goal of bringing together projects and investors. The department also contributes to the provincial government's investment policy.

The business immigration program encourages entrepreneurs from other countries to establish, acquire or make a substantial investment in the ownership of a business or commercial venture in Saskatchewan; candidates approved under the program receive priority immigration processing. The department co-ordinates Saskatchewan's participation in this federal government program by providing information to prospective immigrants and evaluating their business proposals.

Alberta. The Alberta Opportunity Co. (AOC), a Crown agency, promotes economic growth by stimulating new businesses and aiding existing

enterprises. AOC gives priority to Albertans and Alberta-owned enterprises, small businesses and centres of small population.

To qualify for assistance, a business may be a proprietorship, partnership, co-operative or corporate body, must operate for gain or profit, must be in Alberta and must provide assurance that any aid given will be used exclusively in Alberta. Eligible businesses include manufacturing, processing and assembly operations, service industries, commercial wholesale and retail trade, recreational facilities, tourist establishments, local development organizations, student business enterprises and new industries which are unique and valuable additions to the province. The program is not designed for finance companies, suppliers of residential accommodation other than tourist facilities, public utilities including power generation and distribution, or resource-based industries such as mining and oil and gas production.

Assistance may provide for establishing new businesses, acquiring fixed assets — land, buildings and equipment — expanding existing facilities, strengthening working capital, financing raw material or finished inventories for manufacturers, and research and development. Funds are made available directly or by guarantee in various forms.

AOC also has established a venture capital division which provides investment in companies involved in leading edge technology, requiring early-stage investment.

Business counselling services of AOC include management advice and guidance on financial, technical and marketing matters for small and intermediate-sized Alberta businesses which cannot afford to obtain this type of help elsewhere. Services are provided through the company's head office in Ponoka and branch offices in Calgary, Lethbridge, Grande Prairie, St. Paul, Medicine

Hat, Edson, Edmonton, Peace River, Lloydminster, Red Deer and Brooks.

British Columbia. Goals of British Columbia's economic strategy are enhanced regional development; economic and industrial diversification; sustained employment growth; and price and real income stability.

British Columbia has adopted a new approach to building a dynamic economy through strong regional economies in all parts of the province. This is being accomplished through the formation of eight new development regions, each with its own Minister of State, and increased involvement of communities and local groups in setting regional priorities.

The Ministry of Regional Development's economic diversification and policy division advises on development strategies and provides policy options, as well as undertaking economic analyses. In addition, it assesses major industrial projects and proposals, determining possible complementary action that will facilitate their realization.

The Ministry's business promotion division implements and co-ordinates a variety of information, advisory and financial incentive initiatives to stimulate the start-up and expansion of enterprises in all regions of the province. Special emphasis is placed on entrepreneurial and self-help actions at the local level.

The Ministry of International Business and Immigration assists British Columbia firms in identifying and capturing emerging market opportunities in Canada and abroad. In addition, it helps to promote the province as a positive investment location and reviews prospective business immigrant proposals. Offices are maintained in England, Federal Republic of Germany, Hong Kong, Japan, Korea, Singapore, and Los Angeles, as well as British Columbia House in Ottawa.

Sources

- 16.1 Industry Division, Statistics Canada.
- 16.2 Industry, Science and Technology Canada; Revenue Canada Customs and Excise.
- 16.3 – 16.3.2, 16.3.4 Communications Branch, Department of Consumer and Corporate Affairs.
- 16.3.3 Public Relations Branch, Standards Council of Canada.
- 16.4 Supplied by the respective provincial government departments.

FOR FURTHER READING

Selected publications from Statistics Canada

- Monthly Survey of Manufacturing, monthly. 31-001
- Capacity Utilization Rates in Canadian Manufacturing, quarterly. 31-003
- Manufacturing Industries of Canada, National and Provincial Areas, annual. 31-203
- Manufacturing Industries of Canada, Sub-provincial Areas, annual. 31-209
- Products Shipped by Canadian Manufacturers, annual. 31-211
- Domestic and Foreign Control of Manufacturing, Mining and Logging Establishments in Canada, biennial. 31-401
- Industrial Organization and Concentration in the Manufacturing, Mining and Logging Industries, biennial. 31-402

More information about these publications is available from Statistics Canada. See Appendix F for a complete list of Statistics Canada offices.

TABLES

- .. not available

... not appropriate or not applicable

— nil or zero

-- too small to be expressed
- e estimate

p preliminary

r revised

certain tables may not add due to rounding

16.1 Value of shipments of goods of own manufacture, by province (million dollars)

Province or territory	1979	1981	1983 ¹	1984	1985
Newfoundland	1,028.0	1,241.3	1,174.8	1,170.3	1,223.8
Prince Edward Island	212.5	247.0	285.2	289.0	296.9
Nova Scotia	3,212.5	3,822.6	3,891.5	4,595.4	4,634.8
New Brunswick	2,970.5	3,844.2	3,504.8	4,092.3	4,243.0
Quebec	39,117.3	50,139.1	52,151.1 ^r	57,149.3 ^r	60,717.5
Ontario	76,220.2	93,989.5	103,885.0	121,726.4	131,988.2
Manitoba	3,914.7	4,977.0	4,957.0	5,036.1	5,549.3
Saskatchewan	1,863.3	2,503.6	2,619.5	2,851.6	2,982.9
Alberta	8,940.0	13,437.1	13,850.3	15,288.0 ^r	17,191.9
British Columbia	14,627.8	16,793.4	16,998.2	17,979.1 ^r	19,863.4
Yukon and Northwest Territories	26.3	34.9	49.0	51.3	58.8
Canada	152,133.1	191,029.7	203,366.4 ^r	230,228.9 ^r	248,750.5

¹ Statistics for the years 1970-82 were compiled on the basis of the 1970 Standard Industrial Classification (SIC), while those for 1983 and subsequent years were compiled on the basis of the 1980 Standard Industrial Classification. To ascertain the impact of this classification change, the reader is referred to the data for the year 1982 in Table 16.4, which is shown on the basis of both 1970 and 1980 classification. The number of major industry groups under the 1980 SIC has increased from 20 to 22 with conceptual changes in the content of a few of these groups.

16.2 Value of shipments of goods of own manufacture, by industry group (million dollars)

Industry group	1981	1983 ¹	1984	1985
Food and beverage industries	31,765.9	33,882.1	36,175.2	37,656.6
Tobacco products industries	1,374.8	1,516.5	1,590.2	1,640.9
Rubber and plastic products industries	4,513.2	5,184.1	6,017.5 ^r	6,415.1
Leather industries	1,218.8	1,166.4	1,270.5	1,308.2
Textile industries	5,051.8	5,111.4 ₂	5,252.3 ₂	5,319.7 ₂
Knitting mills	1,012.3			
Clothing industries	4,090.2	4,891.1	5,174.9	5,543.2
Wood industries	8,436.9	9,405.9	9,972.5	11,121.6
Furniture and fixture industries	2,772.8	2,696.8	3,021.5	3,398.6
Paper and allied industries	15,729.4	15,010.8	17,471.9	18,074.6
Printing, publishing and allied industries	6,463.6	7,579.4	8,659.4	9,534.8
Primary metal industries	14,449.5	13,664.9	16,431.5	16,971.0
Metal fabricating industries (except machinery and transportation equipment industries)	12,375.7	11,098.8	12,193.1	13,971.0
Machinery industries (except electrical machinery)	8,689.0	5,784.8	6,863.2	7,450.8
Transportation equipment industries	21,681.3	28,455.6	37,916.3	43,182.3
Electrical products industries	8,938.4	9,955.8 ^r	11,790.9 ^r	13,528.1
Non-metallic mineral products industries	4,769.3	4,779.1	5,246.4	5,879.1
Petroleum and coal products industries	20,453.3	23,324.4	23,336.8	24,420.8
Chemical and chemical products industries	13,189.5	15,686.1	17,174.9	18,268.6
Other manufacturing industries	4,054.0	4,172.5	4,669.8	5,065.4
All manufacturing industries	191,029.7	203,366.4 ^r	230,228.9 ^r	248,750.5

¹ See footnote 1, Table 16.1.
² Now included with textile industries.

16.3 Net profit¹ as a percentage of total revenue of corporations

Industry group	1981 ^r	1982	1983	1984 ^r	1985
Food and beverage industries	3.5	3.6	4.3	4.0	3.6
Rubber industries	5.9	2.9	3.8	5.8	5.1
Textile industries ²	4.5	1.6 ^r	4.7 ^r	4.4	3.8
Wood industries ³	1.3	3.2 ^r	2.5 ^r	2.0	3.7
Paper and allied industries	9.6	0.7	0.8	3.5	2.8
Printing, publishing and allied industries	8.7	8.0	8.6	8.8	8.6
Primary metal industries	9.5	2.1	1.0	4.4	0.9
Metal fabricating industries	6.7	2.8	4.0	4.9	5.8
Machinery industries	5.1	0.9	1.0	3.7	3.1
Transportation equipment industries	1.3	4.4	3.6	6.5	5.7

16.3 Net profit¹ as a percentage of total revenue of corporations (concluded)

Industry group	1981 [†]	1982	1983	1984 [†]	1985
Electrical products industries	6.7	4.6	5.7	5.8	4.7
Non-metallic mineral products industries	5.4	4.0	4.7	7.2	9.7
Petroleum and coal products industries	10.6	5.1	2.0	6.9	6.5
Chemical and chemical products industries	8.9	4.7	6.3	7.2	5.8
Miscellaneous manufacturing industries ⁴	6.2	6.3 [‡]	7.0 [‡]	6.9	7.3

¹ Before taxes and extraordinary items.² Includes knitting mills and clothing industries.³ Includes furniture and fixture industries.⁴ Includes tobacco and leather industries.**16.4 Summary statistics, annual Census of Manufacturers, 1974-85¹**

Year	Establishments No.	Manufacturing activity					
		Production and related workers			Cost of fuel and electricity ^{2,3} \$'000	Cost of materials and supplies used \$'000	Value of shipments of goods of own manufacture \$'000
		Number	Person-hours paid '000	Wages \$'000			
1974	31,535	1,300,792	2,713,436	11,637,073	1,623,617	47,499,791	82,455,109
1975	30,100	1,271,786	2,613,062	12,699,228	1,805,398	51,177,942	88,427,031
1976	29,053	1,276,693	2,650,230	14,697,394	2,325,264	56,982,416	98,280,777
1977	27,716	1,242,103	2,577,429	15,814,667	2,790,351	63,015,412	108,881,959
1978 ⁴	31,963	1,310,293	2,720,935	17,928,190	3,397,375	74,919,990	128,889,376
1979 ⁵	34,578	1,360,883	2,834,642	20,376,979	3,879,624	90,270,324	152,133,081
1980	35,495	1,346,187	2,780,203	22,162,309	4,448,859	99,897,576	168,058,662
1981	35,780	1,337,433	2,755,669	24,539,352	5,468,509	114,283,081	191,029,704
1982	35,834	1,212,424	2,473,214	24,261,593	6,028,226	111,971,399	187,932,882
1982 ⁶	34,121	1,205,859	2,460,189	24,180,897	6,020,309	111,834,089	187,710,349
1983	35,287	1,193,912	2,455,229	25,763,545	6,637,059	119,759,106	203,366,412 [†]
1984 [†]	36,464	1,240,816	2,583,486	28,294,557	7,256,843	136,122,271	230,228,931
1985	36,854	1,305,159	2,734,519	31,072,594	7,408,353	145,817,198	248,750,503
Total activity							
		Working owners and partners		Total employees ⁷		Cost of materials and supplies used and goods purchased for resale ⁸ \$'000	Value of shipments and other revenue ⁹ \$'000
		Number	Withdrawals '000	Number	Salaries and wages \$'000		
1974	31,535	7,067	..	1,785,977	17,556,982	57,794,605	95,030,218
1975	30,100	6,977	..	1,741,159	19,156,679	62,384,245	102,148,633
1976	29,053	5,666	..	1,743,047	21,799,733	69,487,283	113,416,996
1977	27,716	4,859	..	1,704,583	23,595,238	77,761,372	126,324,545
1978 ⁴	31,963	6,008	..	1,790,618	26,571,596	91,866,286	148,742,898
1979 ⁵	34,578	6,574	..	1,855,393	30,112,290	110,772,016	176,352,327
1980	35,495	6,385	..	1,850,436	33,133,061	121,105,853	193,310,632
1981	35,780	5,930	..	1,853,968	37,106,195	137,410,611	218,550,416
1982	35,834	5,405	..	1,709,418	37,712,333	134,108,948	214,429,419
1982 ⁶	34,121	4,342	..	1,702,303	37,624,733	133,965,324	214,201,297
1983	35,287	4,539	..	1,671,140	39,609,111	143,453,528	231,884,329 [†]
1984 [†]	36,464	4,711	..	1,722,045	43,076,019	164,912,102	264,395,795
1985	36,854	—	..	1,766,763	46,208,030	179,270,781	287,687,281

¹ Statistics for the years 1970-82 were compiled on the basis of the 1970 edition of the Standard Industrial Classification (SIC), while data for the 1982 (restated) and subsequent years have been compiled on the basis of the 1980 revision of the Standard Industrial Classification. Thus 1982 is a "link year" to which the reader may refer to measure the impact of the change in classification on the various manufacturing statistics.² Cannot be reported separately for manufacturing and non-manufacturing activities but related substantially to manufacturing activity.³ From 1970-81 inclusive, the cost of fuel and electricity was not collected separately for small firms and was included in the cost of materials and supplies used.⁴ Some 3,820 establishments with manufacturing shipments of \$2,257 million were added to the census in 1978 as a result of improved coverage, mostly of small establishments.⁵ Some 1,142 establishments with manufacturing shipments of \$557 million were added to the census in 1979 as a result of improved coverage, mostly of small establishments.⁶ Data for 1982 restated to the 1980 revision of the Standard Industrial Classification.⁷ Includes production and related workers, administrative and office employees, sales, distribution and other employees; excludes working owners and partners.⁸ Includes supplies used in both manufacturing and non-manufacturing activity.⁹ Includes shipments of goods of own manufacture, value of shipments of goods purchased for resale and other operational revenue.¹⁰ Value of total operational revenue less total costs of materials, supplies, fuel and electricity used and goods purchased for resale in the same condition; all adjusted for inventory changes where required.

16.5 Establishments in the manufacturing industries, by number employed and by province, 1980 and 1985, with totals for 1981-84

Year and province or territory	Number employed									Total
	Under 5	5 to 9	10 to 19	20 to 49	50 to 99	100 to 199	200 to 499	500 to 999	1,000 or over	
Number of establishments										
1980										
Newfoundland	115	45	34	53	30	22	18	3		320
Prince Edward Island	62	35	20	31		4				152
Nova Scotia	259	144	155	126	57	35	27	8	4	815
New Brunswick	190	116	110	103	41	44	27	10		641
Quebec	2,944	1,915	1,827	2,036	987	556	341	88	46	10,740
Ontario	3,808	2,484	2,351	2,664	1,343	933	625	168	78	14,454
Manitoba	394	218	213	216	129	94	33	10	4	1,311
Saskatchewan	312	133	122	113	50	24	14	3		771
Alberta	720	475	439	402	186	100	51	15		2,388
British Columbia	1,391	772	595	534	251	162	128	31	11	3,875
Yukon and Northwest Territories	4	10	6	6						28
Canada	10,201	6,347	5,872	6,272	3,086	1,971	1,267	331	148	35,495
1985										
Newfoundland	93	100		55	37	18	14	4		321
Prince Edward Island	49	34	21	19	14	4				141
Nova Scotia	261	152	129	152	59	67				820
New Brunswick	190	110	130	112	53	40	22	8		665
Quebec	2,771	1,997	1,883	2,035	970	558	321	86	32	10,653
Ontario	4,200	2,620	2,583	2,789	1,554	985	628	143	68	15,570
Manitoba	376	219	216	236	107	66	34	10	3	1,267
Saskatchewan	311	152	134	106	50	26	9	3		791
Alberta	846	521	436	417	161	107	38	10		2,536
British Columbia	1,596	802	621	532	226	152	106	18	9	4,062
Yukon and Northwest Territories	8	15		5						28
Canada	10,701	6,684	6,191	6,458	3,231	1,988	1,195	289	117	36,854
Canada										
1981	10,478	6,366	5,925	6,274	2,996	1,999	1,268	318	156	35,780
1982	10,710	6,521	6,072	6,246	2,897	1,847	1,129	274	138	35,834
1983 ¹	10,568	6,358	5,977	6,089	2,941	1,850	1,123	258	123	35,287
1984	11,391	6,460	5,985	6,134	3,031	1,878	1,189	275	121	36,464

¹ See footnote 1, Table 16.1.

16.6 Establishments in manufacturing industries, by industry group and number employed, 1985¹

Industry group	Establishments with total employment of									Total
	Under 5	5 to 9	10 to 19	20 to 49	50 to 99	100 to 199	200 to 499	500 to 999	1,000 or over	
Food industries	638	522	566	665	400	243	158	28	8	3,228
Beverage industries	—	181	—	—	53	34	30	6	—	304
Tobacco products industries	—	13	—	—	—	12	—	—	—	25
Rubber products industries	—	63	—	—	50	—	35	—	—	148
Plastic products industries	—	386	222	251	147	85	—	—	—	1,091
Leather and allied products industries	74	54	59	84	45	65	—	3	—	384
Primary textile industries	—	65	—	47	31	32	33	7	—	215
Textile products industries	206	170	140	200	—	—	86	—	—	802
Clothing industries	443	361	442	605	355	196	95	—	—	2,497
Wood industries	1,161	682	572	527	248	177	104	5	—	3,476
Furniture and fixture industries	576	308	253	315	162	76	33	4	—	1,727
Paper and allied products industries	—	352	—	—	185	—	90	43	18	688
Printing, publishing and allied industries	2,363	1,182	1,454	247	—	59	197	—	18	5,443
Primary metal industries	—	92	—	190	—	—	76	—	—	435
Fabricated metal products industries	1,668	1,141	1,107	1,353	—	188	66	14	—	5,537

16.6 Establishments in manufacturing industries, by industry group and number employed, 1985¹ (concluded)

Industry group	Establishments with total employment of									Total
	Under 5	5 to 9	10 to 19	20 to 49	50 to 99	100 to 199	200 to 499	500 to 999	1,000 or over	
Machinery industries	380	285	361	419	200	← 170 →			—	1,815
Transportation equipment industries	370	218	← 700 →				110	43	30	1,471
Electrical and electronic products industries	297	198	183	255	169	133	98	30	16	1,379
Non-metallic mineral products industries	379	351	← 699 →			69	25	9	—	1,532
Refined petroleum and coal products industries	← 104 →						← 17 →			121
Chemical and chemical products industries	← 677 →			247	← 230 →		← 102 →			1,256
Other manufacturing industries	← 2,613 →			384	168	72	← 43 →			3,280

¹ See footnote 1, Table 16.1.

16.7 Analysis of value of shipments by establishments in manufacturing industries, selected years, 1981-85

Year and shipment size of establishment	Establishments No.	Value of shipments of goods of own manufacture \$'000	Average per establishment \$'000	Proportion of total shipments %
1981				
Up to \$99,999	6,409	325,284	50.8	0.2
\$ 100,000 - \$ 199,999	4,461	651,951	146.1	0.3
200,000 - 499,999	6,378	2,085,166	326.9	1.1
500,000 - 999,999	4,629	3,321,892	717.6	1.7
1,000,000 - 4,999,999	8,508	19,757,096	2,322.2	10.4
5,000,000 - 9,999,999	2,231	15,890,280	7,122.5	8.3
10,000,000 - 24,999,999	1,891	29,474,907	15,586.9	15.4
25,000,000 - 49,999,999	681	23,430,484	34,406.0	12.3
50,000,000 and over	592	96,092,644	162,318.7	50.3
Total and average	35,780	191,029,704	5,339.0	100.0
1983 ^{1,†}				
Up to \$99,999	5,655	293,868	52.0	0.1
\$ 100,000 - \$ 199,999	4,336	632,443	145.9	0.3
200,000 - 499,999	6,471	2,116,951	327.1	1.0
500,000 - 999,999	4,876	3,490,948	716.0	1.7
1,000,000 - 4,999,999	8,510	19,689,858	2,315.0	9.7
5,000,000 - 9,999,999	2,258	15,830,902	7,011.0	7.8
10,000,000 - 24,999,999	1,860	29,249,730	15,725.7	14.4
25,000,000 - 49,999,999	710	24,744,958	34,852.1	12.2
50,000,000 and over	611	107,306,755	175,624.8	52.8
Total and average	35,287	203,366,412	5,763.2	100.0
1984 [†]				
Up to \$99,999	5,649	291,897	51.7	0.1
\$ 100,000 - \$ 199,999	4,279	626,621	146.4	0.2
200,000 - 499,999	6,702	2,205,270	329.0	0.9
500,000 - 999,999	5,024	3,615,307	719.6	1.6
1,000,000 - 4,999,999	8,932	20,728,937	2,320.7	9.0
5,000,000 - 9,999,999	2,436	17,134,049	7,033.7	7.4
10,000,000 - 24,999,999	1,930	30,355,366	15,728.2	13.2
25,000,000 - 49,999,999	825	28,220,632	34,206.8	12.3
50,000,000 and over	687	127,050,852	184,935.7	55.2
Total and average	36,464	230,228,931	6,313.9	100.0

16.7 Analysis of value of shipments by establishments in manufacturing industries, selected years, 1981-85 (concluded)

Year and shipment size of establishment	Establishments No.	Value of shipments of goods of own manufacture \$'000	Average per establishment \$'000	Proportion of total shipments %
1985				
Up to \$99,999	4,579	279,162	61.0	0.1
\$ 100,000 - \$ 199,999	4,378	639,536	146.1	0.3
200,000 - 499,999	6,906	2,269,846	328.7	0.9
500,000 - 999,999	5,115	3,669,039	717.3	1.4
1,000,000 - 4,999,999	9,583	22,384,562	2,335.9	9.0
5,000,000 - 9,999,999	2,585	18,275,651	7,069.9	7.4
10,000,000 - 24,999,999	2,089	32,934,898	15,765.9	13.3
25,000,000 - 49,999,999	890	30,759,409	34,561.1	12.4
50,000,000 and over	729	137,538,400	188,667.2	55.3
Total and average	36,854	248,750,503	6,749.6	100.0

¹ See footnote 1, Table 16.1

16.8 Establishments in manufacturing industries, by value of shipments of own manufactured goods, for Canada, 1980-85 and by province, selected years, 1982-85

Year and area	Up to \$99,999	\$100,000 to \$199,999	\$200,000 to \$499,999	\$500,000 to \$999,999	\$1,000,000 to \$4,999,999	\$5,000,000 to \$9,999,999	\$10,000,000 to \$24,999,999	\$25,000,000 to \$49,999,999	\$50,000,000 and over	Total
Canada										
1980	6,996	4,474	6,302	4,549	8,182	2,120	1,735	625	512	35,495
1981	6,409	4,461	6,378	4,629	8,508	2,231	1,891	681	592	35,780
1982	6,205	4,358	6,708	4,783	8,544	2,201	1,809	666	560	35,834
1983 ^{1,2}	5,655	4,336	6,471	4,876	8,510	2,258	1,860	710	611	35,287
1984 ¹	5,649	4,279	6,702	5,024	8,932	2,436	1,930	825	687	36,464
1985	4,579	4,378	6,906	5,115	9,583	2,585	2,089	890	729	36,854
1982										
Nfld.	77	16	47	25	← 125 →				5	295
PEI	31	13	19	21	← 43 →				—	127
NS	176	84	167	83	167	47	36	9	12	781
NB	114	51	125	72	139	37	32	7	14	591
Que.	2,032	1,370	1,962	1,404	2,599	609	450	165	162	10,753
Ont.	2,266	1,667	2,658	2,061	3,675	1,035	872	344	244	14,822
Man.	217	157	252	161	309	73	75	22	13	1,279
Sask.	147	114	155	90	163	35	32	6	7	749
Alta.	349	298	506	368	629	143	110	37	50	2,490
BC	793	585	810	489	749	190	181	69	53	3,919
YT and NWT	3	3	7	9	← 6 →			—	—	28
1984 ¹										
Nfld.	89	34	45	34	74	29	21	← 7 →		333
PEI	36	20	20	← 34 →						146
NS	189	102	155	91	197	49	31	12	14	840
NB	130	81	111	106	151	35	41	← 20 →		675
Que.	1,669	1,277	1,890	1,516	2,687	704	526	205	175	10,649
Ont.	2,035	1,645	2,647	2,135	3,931	1,166	932	431	341	15,263
Man.	199	146	269	156	327	85	70	23	15	1,290
Sask.	149	104	185	90	161	40	32	7	9	777
Alta.	341	322	519	364	603	142	105	29	57	2,482
BC	808	545	850	505	759	179	170	107	57	3,980
YT and NWT	4	3	11	← 11 →						29
1985										
Nfld.	← 60 →	44	46	35	← 86 →	21	21	4	4	321
PEI	← 43 →		28	14	← 56 →					141
NS	142	97	155	97	214	50	39	13	13	820
NB	98	74	116	97	177	33	46	10	14	665
Que.	1,322	1,316	1,973	1,464	2,865	756	560	220	177	10,653
Ont.	1,650	1,647	2,765	2,207	4,201	1,250	1,021	453	376	15,570
Man.	165	150	246	174	328	88	70	29	17	1,267
Sask.	124	122	176	97	183	41	32	6	10	791
Alta.	311	352	503	384	619	154	119	41	53	2,536
BC	678	555	889	541	858	186	180	110	65	4,062
YT and NWT	← 7 →		9	5	← 7 →				—	28

¹ See footnote 1, Table 16.1.

16.9 Analysis of employment in establishments in manufacturing industries, selected years, 1980-85

Year and size of establishment by number employed ¹		Establishments No.	Employees No.	Working owners and partners No.	Proportion of total employment %
1980					
Under 5	employed	10,201	19,265	4,524	1.0
5 - 9	"	6,347	41,065	1,399	2.2
10 - 19	"	5,872	80,588	304	4.4
20 - 49	"	6,272	195,551	128	10.6
50 - 99	"	3,086	215,061	24	11.6
100 - 199	"	1,971	277,727	2	15.0
200 - 499	"	1,267	381,676	4	20.6
500 - 999	"	331	225,439	—	12.2
1,000 or more	"	148	315,657	—	17.1
Head offices		...	98,380	..	5.3
Total		35,495	1,850,409	6,385	100.0
1982					
Under 5	employed	10,710	20,966	4,101	1.2
5 - 9	"	6,521	42,782	969	2.5
10 - 19	"	6,072	83,509	184	4.9
20 - 49	"	6,246	194,378	124	11.4
50 - 99	"	2,897	202,134	13	11.8
100 - 199	"	1,847	258,247	8	15.1
200 - 499	"	1,129	336,210	6	19.7
500 - 999	"	274	187,105	—	10.9
1,000 or more	"	138	282,017	—	16.5
Head offices		...	101,502	..	5.9
Total		35,834	1,708,850	5,405	100.0
1984					
Under 5	employed	11,391	22,819 ^f	3,451	1.3
5 - 9	"	6,460	42,364	934	2.5
10 - 19	"	5,985	82,212	204	4.8
20 - 49	"	6,134	191,464	71	11.1
50 - 99	"	3,031	211,070	41	12.3
100 - 199	"	1,878	260,358	6	15.1
200 - 499	"	1,189	357,376	—	20.7
500 - 999	"	275	189,545	4	11.0
1,000 or more	"	121	265,708	—	15.4
Head offices		...	99,129	..	5.8
Total		36,464	1,722,045 ^f	4,711	100.0
1985					
Under 5	employed	10,701	22,866	..	1.3
5 - 9	"	6,684	43,578	..	2.5
10 - 19	"	6,191	85,271	..	4.8
20 - 49	"	6,458	200,102	..	11.3
50 - 99	"	3,231	224,066	..	12.7
100 - 199	"	1,988	275,756	..	15.6
200 - 499	"	1,195	357,533	..	20.2
500 - 999	"	289	198,350	..	11.2
1,000 or more	"	117	264,940	..	15.0
Head offices		...	94,301	..	5.3
Total		36,854	1,766,763	..	100.0

¹ Includes working owners and partners.

16.10 Trends in domestic exports of manufactures (customs basis), 1974-87 (million dollars)

Year	Fabricated materials	End products	Total manufactured goods ¹
1974	10,695.7	9,236.8	19,932.5
1975	9,883.8	10,472.7	20,356.5
1976	12,227.6	12,711.2	24,938.8
1977	14,926.9	15,231.2	30,158.1
1978	19,155.0	18,855.3	38,010.3
1979	24,375.6	20,923.8	45,299.4
1980	29,344.9	21,850.5	51,195.4
1981	30,540.3	25,473.3	56,013.6
1982	27,865.1	28,690.8	56,555.9
1983	29,971.6	33,285.0	63,256.6
1984	36,026.8	44,770.8	80,797.6
1985	36,780.5	49,952.5	86,733.0
1986	38,442.9	52,703.5	91,146.4
1987	41,820.9	51,903.0	93,723.9

¹ These categories of exports are only approximately equivalent to exports of manufactured goods.

16.11 Destination of manufacturing shipments by region, by value and percentage, 1984^{1,2}

Manufacturing region of shipments	Destination region					
	Atlantic	Quebec	Ontario	Prairies	British Columbia	Exports
Value of shipments received \$'000,000						
Atlantic	5,467	891	690	151	73	2,875
Quebec	2,511	29,783	9,654	1,893	1,017	12,132
Ontario	2,486	9,701	62,767	6,189	2,532	38,051
Prairies	143	869	1,717	16,031	1,394	3,028
British Columbia	66	282	633	1,454	9,187	6,358
Total	10,673	41,527	75,461	25,718	14,202	62,444
Percentage of value of shipments						
Atlantic	34	9	7	1	1	28
Quebec	4	52	17	3	2	21
Ontario	2	8	52	5	2	31
Prairies	1	4	7	69	6	13
British Columbia	—	2	4	8	51	35
Total	5	18	33	11	6	27

¹ This survey is conducted every five years.

² See footnote 1, Table 16.1.

16.12 Number of employees by industry group and province, 1984 and 1985

Year and industry group	Province or territory					
	Nfld.	PEI	NS	NB	Que.	Ont.
1984						
Food industries	9,606	1,763	10,207	9,221	45,107	72,489
Beverage industries	589	1	1	948	10,213	11,847
Tobacco products industries	—	—	1	1	4,056	3,113
Rubber products industries	—	1	1	26	1	15,187
Plastic products industries	1	—	463	217	8,936	21,150
Leather and allied products industries	1	—	1	1	9,310	13,779
Primary textile industries	—	1	802	1	15,762	10,963
Textile products industries	—	1	1	64	15,228	13,584
Clothing industries	—	1	1,021	1	63,454	33,634
Wood industries	335	219	1,867	3,503	28,603	20,840
Furniture and fixture industries	1	—	233	295	14,804	21,952
Paper and allied products industries	1	—	2,993	5,738	41,107	41,690
Printing, publishing and allied industries	493	1	1	1,184	28,955	57,364
Primary metal industries	1	—	1	1	27,723	65,045
Fabricated metal products industries	237	169	1,248	1,119	30,959	75,331
Machinery industries	1	1	1	389	13,324	43,147

16.12 Number of employees by industry group and province, 1984 and 1985 (continued)

Year and industry group	Province or territory					
	Nfld.	PEI	NS	NB	Que.	Ont.
1984 (concluded)						
Transportation equipment industries	1	106	3,233	1	32,200	143,855
Electrical and electronic products industries	1	1	1,257	1	34,580	87,260
Non-metallic mineral products industries	1	1	1	1	1	24,047 ^f
Refined petroleum and coal products industries	1	—	1	1	2,336	9,468
Chemical and chemical products industries	1	1	887	367	24,420	51,863
Other manufacturing industries	114	138	1	1	1	40,320
All manufacturing industries	15,907	2,963	35,024	28,531	484,883	880,927
	Man.	Sask.	Alta.	BC	YT and NWT	Canada ²
Food industries	8,340	3,974	11,872	14,430	—	187,009
Beverage industries	1,255	1	2,107	2,962	—	31,710
Tobacco products industries	102	1	77	147	—	7,626
Rubber products industries	1	1	360	379	—	25,582
Plastic products industries	915	123	1,582	1,879	—	35,319
Leather and allied products industries	436	1	1	1	—	24,378
Primary textile industries	1	—	1	1	—	28,117
Textile products industries	1	—	762	1,032	—	31,955
Clothing industries	6,962	397	1,527	3,112	—	110,634
Wood industries	1,932	1,233	5,508	38,901	—	102,941
Furniture and fixture industries	1,846	1	1,507	1,515	—	45,287
Paper and allied products industries	1,746	1	2,187	17,433	—	115,799
Printing, publishing and allied industries	4,636	1	7,664	8,791	—	113,447
Primary metal industries	2,121	1	3,656	6,982	—	108,950
Fabricated metal products industries	3,759	1,283	7,034	8,063	—	129,202
Machinery industries	1	1,836	4,996	4,301	—	72,777
Transportation equipment industries	5,627	591	1,958	6,094	—	195,629
Electrical and electronic products industries	3,020	1,418	3,324	4,290	—	135,951
Non-metallic mineral products industries	1,229	1,011	3,963	4,220	—	48,894 ^f
Refined petroleum and coal products industries	1	1	2,981	1,035	1	17,264
Chemical and chemical products industries	991	442	5,157	3,030	—	87,802
Other manufacturing industries	1,168	1	2,780	2,983	1	65,772
All manufacturing industries	51,303	18,861	71,451	131,909	285	1,722,045 ^f
	Nfld.	PEI	NS	NB	Que.	Ont.
1985						
Food industries	10,057	2,050	10,539	9,179	45,557	74,241
Beverage industries	570	1	1	1,042	10,466	11,775
Tobacco products industries	—	—	1	1	3,963	2,690
Rubber products industries	—	—	1	1	1	15,302
Plastic products industries	1	—	520	287	9,805	22,567
Leather and allied products industries	1	—	1	1	8,206	13,763
Primary textile industries	—	1	782	1	14,388	10,920
Textile products industries	1	—	1	1	13,959	14,216
Clothing industries	—	1	1	1	63,209	33,870
Wood industries	445	208	1,995	3,764	29,588	23,207
Furniture and fixture industries	50	—	235	294	16,273	27,718
Paper and allied products industries	1	—	3,102	5,609	41,231	40,990
Printing, publishing and allied industries	491	227	1	1	29,301	59,623
Primary metal industries	1	—	1	1	27,061	64,040
Fabricated metal products industries	233	172	1,484	1,308	32,356	82,250
Machinery industries	1	1	1	483	13,133	44,394
Transportation equipment industries	1	136	2,779	1	34,404	156,152
Electrical and electronic products industries	1	1	1,261	1	35,472	87,666
Non-metallic mineral products industries	448	1	1	1	12,861	25,218
Refined petroleum and coal products industries	1	—	1	1	2,159	9,291
Chemical and chemical products industries	1	1	564	369	24,983	50,700
Other manufacturing industries	88	247	1	1	1	40,825
All manufacturing industries	16,201	3,388	35,149	29,456	490,742	911,418
	Man.	Sask.	Alta.	BC	YT and NWT	Canada ²
Food industries	8,786	4,021	12,104	15,466	—	192,000
Beverage industries	1,260	1	2,085	2,796	—	31,903
Tobacco products industries	99	1	74	148	—	7,097
Rubber products industries	1	1	1	1	—	25,366
Plastic products industries	1	1	1,735	1,932	—	38,182
Leather and allied products industries	387	1	1	1	—	23,129
Primary textile industries	1	—	1	308	—	26,758
Textile products industries	1	1	599	908	—	31,110
Clothing industries	7,030	372	1,617	3,294	—	110,910
Wood industries	2,104	1,260	5,386	39,603	—	107,560

16.12 Number of employees by industry group and province, 1984 and 1985 (concluded)

Year and industry group	Province or territory					
	Man.	Sask.	Alta.	BC	YT and NWT	Canada ²
1985 (concluded)						
Furniture and fixture industries	1,775	148	1,628	1,747	—	49,868
Paper and allied products industries	1,526	1	2,264	16,850	—	114,187
Printing, publishing and allied industries	4,645	1	7,960	8,951	—	117,062
Primary metal industries	2,178	1	3,698	6,530	—	106,808
Fabricated metal products industries	3,784	1,243	8,042	8,826	—	139,698
Machinery industries	3,424	1,797	6,465	4,536	—	74,732
Transportation equipment industries	6,010	673	2,112	6,579	—	210,984
Electrical and electronic products industries	2,967	1,473	3,041	4,440	—	137,165
Non-metallic mineral products industries	1,293	1	3,889	1	—	50,605
Refined petroleum and coal products industries	1	1	2,844	1,059	1	16,739
Chemical and chemical products industries	924	416	5,578	3,010	—	87,224
Other manufacturing industries	1,278	1	2,863	3,090	1	67,676
All manufacturing industries	51,461	19,245	74,684	134,724	295	1,766,763

¹ Confidential.² See footnote 1, Table 16.1.**16.13 Value of shipments of goods of own manufacture by industry group and province, 1984 and 1985 (million dollars)**

Year and industry group	Province or territory					
	Nfld.	PEI	NS	NB	Que.	Ont.
1984						
Food industries	498.0 ^f	202.1	886.1	875.1	8,481.2	12,411.5
Beverage industries	97.8	1	1	146.0	1,175.4	2,003.7
Tobacco products industries	—	—	—	—	747.6	842.6
Rubber products industries	—	—	1	—	1	1,476.0
Plastic products industries	1	1	38.8	26.0 ^f	878.0	2,071.1
Leather and allied products industries	1	—	1	—	441.0	749.6
Primary textile industries	—	1	59.6	1	1,535.5	1,062.0
Textile products industries	1	1	1	3.1	1,206.2	1,111.4
Clothing industries	—	1	42.2	1	3,159.5	1,419.2
Wood industries	25.2	10.4	118.2	283.9	2,386.7	1,795.7
Furniture and fixture industries	1	—	13.6	16.1	906.0	1,766.4
Paper and allied products industries	1	—	434.0	1,000.2	5,863.6	5,851.9
Printing, publishing and allied industries	32.6	1	1	69.8	2,494.9	4,399.1
Primary metal industries	1	—	1	1	4,675.7	9,444.7
Fabricated metal products industries	16.2	9.2	104.9	96.4	3,237.2	6,961.2
Machinery industries	1	1	1	32.2	1,017.1	4,284.5
Transportation equipment industries	1	9.1	373.8	1	4,304.8	31,499.7
Electrical and electronic products industries	1	1	56.4	1	3,134.0 ^f	7,688.1
Non-metallic mineral products industries	1	1	4.3	1	1	2,648.8
Refined petroleum and coal products industries	—	—	1	1	5,161.5	8,847.9
Chemical and chemical products industries	1	1	169.9	95.3	3,548.3	10,241.6
Other manufacturing industries	4.4	4.4	1	1	1	3,149.7
All manufacturing industries	1,170.3	289.0	4,595.4	4,092.3	56,990.5	121,726.4
	Man.	Sask.	Alta.	BC	YT and NWT	Canada ²
Food industries	1,488.7	877.9	3,580.8	2,323.0	—	31,624.2
Beverage industries	159.0	1	328.5	414.8	—	4,551.0
Tobacco products industries	1	—	—	—	—	1,590.2
Rubber products industries	1	—	28.9	21.8	—	2,507.2
Plastic products industries	105.3	12.8	178.5	196.2	—	3,510.4
Leather and allied products industries	34.9	1	1	8.2	—	1,270.5
Primary textile industries	1	—	1	13.3	—	2,729.3
Textile products industries	1	1	58.3	52.8	—	2,523.0
Clothing industries	300.1	16.7	93.4	134.4	—	5,174.9
Wood industries	134.5	109.8	539.3	4,568.7	—	9,972.5
Furniture and fixture industries	113.8	1	98.9	100.5	—	3,021.5
Paper and allied products industries	249.3	1	452.0	3,144.9	—	17,471.9
Printing, publishing and allied industries	315.9	1	521.0	565.0	—	8,659.4
Primary metal industries	332.2	1	795.2	804.2	—	16,431.5
Fabricated metal products industries	263.2	96.9	614.8	793.0	—	12,193.1
Machinery industries	1	155.7	543.1	386.9	—	6,863.2
Transportation equipment industries	421.5	45.9	124.2	716.9	—	37,916.3
Electrical and electronic products industries	284.9	104.5	227.9	261.1	—	11,790.9 ^f
Non-metallic mineral products industries	136.8	113.0	490.2	464.8	—	5,246.4

16.13 Value of shipments of goods of own manufacture by industry group and province, 1984 and 1985 (million dollars) (concluded)

Year and industry group	Province or territory					
	Man.	Sask.	Alta.	BC	YT and NWT	Canada ²
1984 (concluded)						
Refined petroleum and coal products industries	1	1	4,316.7	2,257.1	1	23,336.8
Chemical and chemical products industries	169.0	141.3	2,096.4	604.0	—	17,174.9
Other manufacturing industries	49.8	1	135.7	147.5	1	4,669.8
All manufacturing industries	5,036.1	2,851.6	15,288.0	17,979.1	51.3	230,228.9 ^f
	Nfld.	PEI	NS	NB	Que.	Ont.
1985						
Food industries	531.5	204.9	974.5	896.4	8,559.6	12,946.8
Beverage industries	87.5	1	1	155.5	1,195.8	2,229.0
Tobacco products industries	—	—	—	—	811.2	829.7
Rubber products industries	—	—	1	1	1	1,590.2
Plastic products industries	1	—	44.5	33.0	975.2	2,249.1
Leather and allied products industries	1	—	1	—	452.9	773.1
Primary textile industries	—	1	66.0	1	1,418.6	1,110.1
Textile products industries	1	—	1	1	1,244.8	1,210.9
Clothing industries	—	1	1	1	3,403.6	1,510.7
Wood industries	25.5	10.3	137.8	343.7	2,565.7	2,103.4
Furniture and fixture industries	1.8	—	13.0	16.8	1,014.0	2,009.0
Paper and allied products industries	1	—	467.2	958.2	6,054.2	6,036.2
Printing, publishing and allied industries	37.5	13.5	1	1	2,536.6	5,023.1
Primary metal industries	1	—	1	1	4,584.7	9,863.0
Fabricated metal products industries	19.0	9.3	112.7	113.0	3,747.2	7,938.2
Machinery industries	1	1	—	39.8	1,078.6	4,665.1
Transportation equipment industries	1	6.5	312.9	1	5,137.4	35,833.8
Electrical and electronic products industries	1	1	73.6	1	3,569.6	8,707.0
Non-metallic mineral products industries	40.6	1	1	1	1,370.1	3,007.6
Refined petroleum and coal products industries	—	—	1	1	5,581.7	8,324.6
Chemical and chemical products industries	1	—	51.8	82.4	3,737.8	10,688.2
Other manufacturing industries	5.0	6.4	1	1	1	3,339.3
All manufacturing industries	1,223.8	296.9	4,634.8	4,243.0	60,717.5	131,988.2
	Man.	Sask.	Alta.	BC	YT and NWT	Canada ²
Food industries	1,695.4	888.8	3,537.6	2,557.6	—	32,792.9
Beverage industries	163.5	1	334.7	454.3	—	4,863.7
Tobacco products industries	1	—	1	1	—	1,640.9
Rubber products industries	1	—	1	1	—	2,554.2
Plastic products industries	1	1	208.1	214.0	—	3,860.9
Leather and allied products industries	36.0	1	1	1	—	1,308.2
Primary textile industries	1	—	1	15.0	—	2,669.7
Textile products industries	1	—	38.7	46.0	—	2,650.1
Clothing industries	303.8	16.3	95.6	159.6	—	5,543.2
Wood industries	162.1	125.5	555.9	5,091.7	—	11,121.6
Furniture and fixture industries	114.7	8.9	108.2	112.1	—	3,398.6
Paper and allied products industries	238.7	1	462.3	3,437.5	—	18,074.6
Printing, publishing and allied industries	333.9	1	569.2	657.6	—	9,534.8
Primary metal industries	492.1	1	865.9	807.4	—	16,971.0
Fabricated metal products industries	290.4	96.1	781.4	863.6	—	13,971.0
Machinery industries	274.6	154.8	755.7	449.1	—	7,450.8
Transportation equipment industries	488.4	50.2	139.7	848.4	—	43,182.3
Electrical and electronic products industries	320.6	180.4	306.9	315.5	—	13,528.1
Non-metallic mineral products industries	159.9	1	523.4	1	—	5,879.1
Refined petroleum and coal products industries	1	1	5,102.1	2,500.6	1	24,420.8
Chemical and chemical products industries	213.6	167.5	2,543.1	659.2	—	18,268.6
Other manufacturing industries	65.0	1	167.4	173.4	1	5,065.4
All manufacturing industries	5,549.3	2,982.9	17,191.9	19,863.4	58.8	248,750.5

¹ Confidential.² See footnote 1, Table 16.1.

16.14 Summary of manufacturing industries, by Census Metropolitan Area, 1984 and 1985¹

Year and Census Metropolitan Area	Estab- lish- ments No.	Employees		Cost (\$'000,000)		Total value added \$'000,000	Value of shipments of goods of own manufacture \$'000,000
		Number	Salaries and wages \$'000,000	Fuel and elec- tricity	Materials and supplies used		
1984							
Calgary, Alta.	776	20,397	531,813	53,262	1,925,949	1,142,907	3,034,675
Chicoutimi-Jonquière, Que.	86	10,161	383,703	94,750	937,621	660,048	1,660,999
Edmonton, Alta.	852	25,952	711,427	234,906	5,635,412	2,042,564	7,794,116
Halifax, NS	215	7,224	172,927	19,361	1,614,570	519,326	2,077,488
Hamilton, Ont.	784	62,660	1,777,685	323,989	4,846,951	3,683,285	8,703,258
Kitchener, Ont.	744	48,029	1,068,805	78,131	2,364,983	2,270,607	4,588,014
London, Ont.	387	20,916	512,149	40,092	1,227,677	1,329,519	2,427,109
Montreal, Que.	5,628	241,596	6,052,039	609,741	17,054,516	13,060,120	29,573,752
Ottawa-Hull, Ont., Que.	452	19,056	495,560	87,545	1,597,955	1,222,466	2,726,590
Quebec, Que.	575	18,860	443,771	80,411	1,784,176	1,405,939	3,180,425
Regina, Sask.	163	4,675	128,676	34,039	747,308	301,198	1,068,239
Saint John, NB	77	5,078	136,606	84,743	1,469,894	344,093	1,906,490
St. Catharines-Niagara, Ont.	420	33,397	1,001,602	207,855	2,474,998	2,116,041	4,777,642
St. John's, Nfld.	96	3,036	69,156	8,046	149,198	150,297	302,193
Saskatoon, Sask.	204	6,336	158,176	17,974	465,501	325,269	783,961
Sudbury, Ont.	81	5,844	168,274	62,410	80,091	266,873	403,954
Thunder Bay, Ont.	108	6,893	195,883	92,032	515,787	443,175	1,033,240
Toronto, Ont.	7,608	345,760	8,174,514	623,063	24,031,654	18,892,488	42,009,521
Vancouver, BC	2,283	61,952	1,730,892	206,759	5,522,123	3,501,782	9,073,441
Victoria, BC	234	3,853	102,102	4,587	147,355	182,000	322,913
Windsor, Ont.	484	35,630	1,184,055	94,301	5,621,542	2,762,902	8,388,373
Winnipeg, Man.	897	39,698	826,768	63,217	2,021,113	1,682,748	3,657,033
1985							
Calgary, Alta.	812	21,683	577,751	56,967	2,076,069	1,340,804	3,376,267
Chicoutimi-Jonquière, Que.	91	9,671	376,779	76,875	806,076	574,127	1,500,968
Edmonton, Alta.	865	27,282	773,059	266,362	6,030,225	2,624,119	8,846,846
Halifax, NS	226	6,880	166,383	20,844	1,708,930	397,746	2,127,202
Hamilton, Ont.	793	63,120	1,841,440	308,962	4,914,247	3,955,919	9,034,236
Kitchener, Ont.	778	50,404	1,168,493	86,675	2,611,028	2,564,319	5,216,268
London, Ont.	393	21,415	549,708	41,937	1,339,629	1,400,441	2,634,154
Montreal, Que.	5,674	245,975	5,809,449	622,906	17,988,050	13,900,030	32,039,997
Ottawa-Hull, Ont., Que.	463	19,125	515,722	80,057	1,936,282	1,319,860	3,103,201
Quebec, Que.	584	20,229	482,495	79,374	1,981,725	1,292,416	3,237,887
Regina, Sask.	173	4,839	135,029	34,529	763,661	355,053	1,123,128
Saint John, NB	77	5,553	166,624	71,620	1,487,161	371,359	1,954,932
St. Catharines-Niagara, Ont.	427	33,210	1,073,863	214,329	2,625,293	2,429,396	5,243,124
St. John's, Nfld.	96	3,095	69,053	8,101	142,348	151,472	296,265
Saskatoon, Sask.	201	6,503	158,442	18,064	482,905	368,036	863,114
Sudbury, Ont.	83	6,169	184,603	63,600	126,824	272,161	448,926
Thunder Bay, Ont.	113	6,922	212,493	91,537	581,265	459,656	1,122,350
Toronto, Ont.	7,811	363,674	9,066,433	673,291	26,231,348	20,698,450	46,029,367
Vancouver, BC	2,359	64,824	1,850,190	210,389	6,129,041	3,819,359	10,026,804
Victoria, BC	227	3,950	106,267	5,241	156,231	179,949	332,800
Windsor, Ont.	495	37,087	1,329,219	100,708	6,136,701	3,062,184	9,191,128
Winnipeg, Man.	894	39,988	865,757	64,070	2,171,296	1,758,246	3,905,446

¹ See footnote 1, Table 16.1.**16.15 Percentages of value of shipments of goods of own manufacture accounted for by the four leading enterprises in the 40 leading industries of Canada, ranked by 1985 shipments**

Industry	Enterprises No.	Establishments No.	Value of shipments of goods of own manufacture \$'000,000	Percentage of shipments accounted for by the four leading enterprises		
				1985	1984	1983
Petroleum products (excluding lubricating oil, grease)	14	33	23,991	64.0	68.7	68.1
Motor vehicle industry	15	21	23,723	95.1	94.5	94.1
Meat and meat products (except poultry)	486	535	8,248	35.9	37.0	40.6
Other primary steel industries	16	29	7,347	83.4	82.8	85.8
Sawmill and planing mill products industry	1,078	1,211	6,863	17.4	18.0	18.5
Newsprint industry	18	42	6,631	48.9	49.6	50.4
Industrial organic chemicals industry, n.e.c.	38	54	4,709	65.1	66.0	66.2
Other non-ferrous smelting, refining	11	30	4,596	76.6	78.0	78.5
Motor vehicle engine and engine parts industry	33	38	3,809	—	—	—
Other commercial printing industries	2,776	2,864	3,751	21.7	23.0	19.9
Other dairy products industries	161	230	3,593	47.7	47.1	48.1
Pulp industry	27	37	3,545	32.5	30.2	32.8
Other motor vehicle accessories and parts	177	192	3,348	55.9	56.2	55.5
Fluid milk industry	82	164	2,817	48.5	48.3	41.9

16.15 Percentages of value of shipments of goods of own manufacture accounted for by the four leading enterprises in the 40 leading industries of Canada, ranked by 1985 shipments (concluded)

Industry	Enter- prises No.	Estab- lish- ments No.	Value of shipments of goods of own manufacture \$'000,000	Percentage of shipments accounted for by the four leading enterprises		
				1985	1984	1983
Aircraft and aircraft parts industry	174	184	2,729	1	1	1
Feed industry	430	554	2,624	23.1	25.0	26.3
Other machinery and equipment industries, n.e.c.	726	739	2,619	13.3	13.7	14.9
Other food products industries, n.e.c.	224	269	2,581	33.3	35.2	35.4
Construction mining and handling machinery	460	497	2,529	18.8	23.2	15.6
Other stamped and pressed metal products	563	606	2,515	47.3	43.3	41.3
Newspapers, magazines and periodicals	388	502	2,442	64.3	63.2	63.8
Other rubber products industries	110	131	2,340	58.4	61.0	60.5
Pharmaceutical and medicine industry	118	134	2,230	27.2	28.6	28.6
Industrial inorganic chemicals industries, n.e.c.	54	107	2,187	41.8	43.7	46.1
Telecommunication equipment industry	29	51	2,018	1	1	93.5
Brewery products industry	11	41	1,985	97.7	97.3	98.2
Plastic and synthetic resin industry	68	86	1,969	33.6	40.4	43.9
Motor vehicle stampings industry	59	80	1,949	60.0	59.9	61.7
Other plastic products industries, n.e.c.	732	766	1,932	10.2	11.0	10.3
Fish products industry	299	390	1,922	47.1	47.4	46.0
Other chemical products industries, n.e.c.	254	302	1,824	28.1	26.5	29.0
Other paper industries	14	26	1,822	62.6	62.9	62.3
Other electronic equipment industries	203	210	1,812	49.9	1	1
Soft drink industry	151	187	1,790	51.8	52.8	51.6
Canned and preserved fruit and vegetable industry	153	187	1,770	40.7	38.5	38.8
Poultry products industry	68	96	1,551	35.9	35.6	37.4
Electronic computers and peripheral equipment	106	108	1,524	60.4	69.8	72.9
Bread and other bakery products industry	412	473	1,455	45.0	42.1	38.6
Corrugated box industry	72	115	1,394	61.9	63.2	61.9
Communications and energy wire and cable industry	29	53	1,375	81.0	76.7	78.0

¹ Confidential.

n.e.c. = not elsewhere classified.

16.16 Capacity utilization rates, by quarter, 1973-88

Year	Quarter	Manufacturing industries			Year	Quarter	Manufacturing industries		
		Durable goods	Non- durable goods	Total			Durable goods	Non- durable goods	Total
1973	1st	88.8	93.0	90.8	1979	1st	82.6	88.6	85.4
	2nd	87.3	93.3	90.1		2nd	80.7	88.8	84.6
	3rd	87.9	92.9	90.3		3rd	80.2	87.4	83.6
	4th	88.6	94.5	91.4		4th	78.5	87.5	82.7
1974	1st	91.1	93.3	92.2	1980	1st	76.6	86.6	81.3
	2nd	88.5	91.7	90.0		2nd	71.1	84.1	77.2
	3rd	86.6	89.6	88.0		3rd	70.5	82.3	76.1
	4th	84.6	86.9	85.7		4th	73.5	83.6	78.3
1975	1st	78.7	82.3	80.4	1981	1st	74.2	85.0	79.3
	2nd	78.1	79.0	78.5		2nd	75.5	85.9	80.4
	3rd	78.7	77.3	78.0		3rd	71.6	81.3	76.2
	4th	79.4	77.8	78.6		4th	67.4	80.5	73.6
1976	1st	79.9	81.3	80.6	1982	1st	63.8	77.6	70.3
	2nd	80.8	85.7	83.1		2nd	59.5	73.4	66.0
	3rd	79.7	85.9	82.6		3rd	56.5	71.9	63.8
	4th	78.8	84.8	81.6		4th	54.2	72.1	62.7
1977	1st	80.9	85.3	83.0	1983	1st	56.2	75.2	65.2
	2nd	79.7	85.5	82.4		2nd	58.7	76.3	67.1
	3rd	79.3	85.0	82.0		3rd	61.6	77.9	69.3
	4th	78.6	84.9	81.6		4th	65.4	79.1	71.9
1978	1st	77.7	86.2	81.7	1984	1st	68.3	78.1	72.9
	2nd	80.6	87.2	83.7		2nd	70.0	82.1	75.7
	3rd	80.6	87.9	84.0		3rd	72.0	82.1	76.8
	4th	82.1	89.2	85.5		4th	72.3	81.4	76.6

16.16 Capacity utilization rates, by quarter, 1973-88 (concluded)

Year	Quarter	Manufacturing industries			Year	Quarter	Manufacturing industries		
		Durable goods	Non-durable goods	Total			Durable goods	Non-durable goods	Total
1985	1st	73.2	81.2	77.0	1987	1st	73.7	83.5	78.3
	2nd	74.7	80.4	77.4		2nd	74.2	83.8	78.7
	3rd	76.8	80.7	78.7		3rd	75.4	83.8	79.4
	4th	75.9	82.7	79.1		4th	78.2	83.9	80.9
1986	1st	75.0	83.0	78.8	1988	1st	78.2	84.7	81.3
	2nd	74.3	82.8	78.3		2nd	78.9	84.3	81.5
	3rd	72.5	82.5	77.2					
	4th	72.6	82.4	77.2					

Sources

16.1, 16.2, 16.4 – 16.9, 16.11 – 16.15 Industry Division, Statistics Canada.

16.3 Industrial Organization and Finance Division, Statistics Canada.

16.10 International Trade Division, Statistics Canada.

16.16 Science, Technology and Capital Stock Division, Statistics Canada.

CHAPTER 17

MERCHANDISING AND SERVICES

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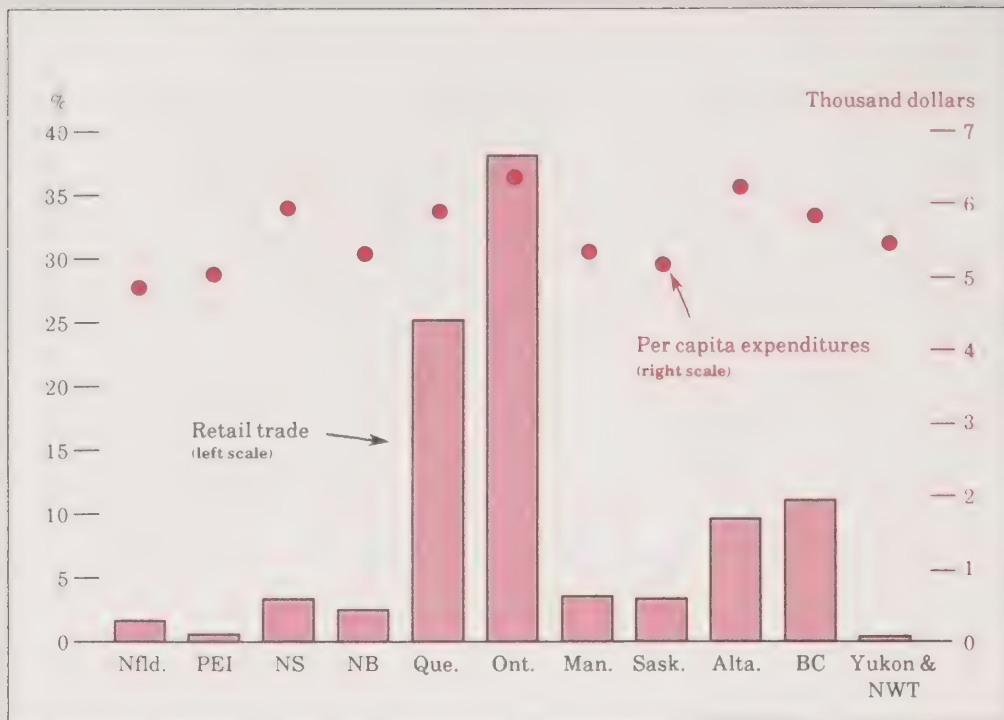
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PERCENTAGE DISTRIBUTION OF RETAIL TRADE AND PER CAPITA EXPENDITURES ON CONSUMER GOODS, 1987

A vast array of products are marketed, bought and sold at various levels of the domestic economy and reach the Canadian consumer on the retail market. In 1987, Ontario remained the largest market in Canada with 38.4% of total retail sales, followed by Quebec (25.3%) and British Columbia (11.1%). The national average per capita expenditure on consumer goods was \$5,999 in 1987.

CHAPTER 17

MERCHANDISING AND SERVICES

Distribution of goods and services from producer to consumer, principally through wholesale and retail channels and service businesses is generally known as the marketing process.

Merchandising industries include both wholesale and retail businesses. Wholesaling exists in a variety of forms: wholesale merchants, agents and brokers, primary products dealers, manufacturers' sales branches, petroleum bulk tank plants and truck distributors. Retailing encompasses all sales activities related to transmitting goods to final consumers, both through traditional store locations and such other channels as direct selling and machine vending. Services cover those firms primarily engaged in providing a wide range of recreational, personal and business services to individuals, businesses and government operations.

Statistics on distributive trade industries are gathered by Statistics Canada through monthly, annual and occasional surveys to produce a variety of statistical information.

17.1 Retail trade

The retail trade sector includes those industries, classified according to the 1980 Standard Industrial Classification, which are primarily engaged in buying commodities for resale to the general public for personal or household consumption and in providing related services. The current measure of retail trade is used by economists and statisticians to estimate total national expenditure on consumer goods (final demand), as shown in the national accounts and the many economic indicators derived from them. Retail trade statistics are collected by the industry division of Statistics Canada from monthly surveys of all retail chains (four or more stores in the same kind of business under one owner), and of a sample of independent retailers based on the retail location concept.

Table 17.1 shows retail trade by kind of business (a refinement of the Standard Industrial Classification) and by province from 1984 to 1987,

and indicates percentage changes in sales for 1987 over 1986 and the percentage distribution of sales by kind of business for 1987.

The results for 1987 continued to show steady growth in the retail sector, reflecting generally favourable economic conditions, including a relatively low rate of inflation and significant declines in unemployment and interest rates. Despite a deceleration in the automotive sector, retail sales remained relatively strong, even in the latter part of the year, following the October 1987 drop in world stock market indexes.

Total retail trade for the year 1987 rose by 9.8% to reach \$153.7 billion, up from \$140.0 billion in 1986.

Adjusted for price changes (inflation), total retail sales increased, in 1987, by 5.8% over the previous year, compared with a real growth of 4.2% in 1986 and 8.2% in 1985.

Motor vehicle dealers led the growth in sales in 1987, with an increase of \$3.6 billion over 1986, followed by combination food stores and service stations, which increased by \$1.7 billion and \$1.5 billion, respectively. With the single exception of variety stores, all retail businesses shared in the overall growth of retail sales in Canada in 1987. The four largest categories were motor vehicle dealers (\$32.2 billion or 21.0% of total retail trade), combination food stores (\$26.8 billion or 17.4%), department stores (\$12.9 billion or 8.4%), and service stations (\$12.3 billion or 8.0%). All provinces registered higher sales in 1987 compared with 1986, with increases ranging from 3.6% in Alberta to 14.5% in Newfoundland.

Because of its demographic predominance, Ontario remained the largest market in Canada with 38.4% of total retail sales in 1987, followed by Quebec (25.3%) and British Columbia (11.1%). Ontario was also the leading province in retail sales per capita in 1987 (\$6,368), followed by Alberta (\$6,241) and Nova Scotia (\$5,945). The national average per capita expenditure on consumer goods was \$5,999 in 1987.

17.1.1 Chain and independent stores

For the monthly retail trade survey, a retail chain is defined as an organization operating four or more retail stores in the same kind of business under the same legal ownership. Department stores are classified as chains even if they do not precisely meet this definition. Independent retailers are defined as those who operate one to three stores, although they may be affiliated with a larger retail organization.

Table 17.2 provides data on the retail sales of chain and independent stores by kind of business in the years 1984-87, with percentage changes for 1987 over 1986 and for 1985 over 1984. Over the four-year period, independent retailers gradually increased their market share from 57.1% of total retail trade in 1984 to 59.6% in 1987. Independent retailing held its predominance in the automotive sector (accounting for 98.7% of total motor vehicle sales in 1987) and, in recent years, had stronger overall growth relative to the chain store sector. In 1987, the independent sector had an increase in the number of new retail businesses. In addition, the trend to franchising increased the proportion of independent retailers (franchisees) vis-à-vis chain stores, especially in hardware and in combination food stores (supermarkets), although chain organizations continued to remain dominant in the latter category.

Total sales of independent retailers in 1987 were \$91.7 billion, while chain store sales amounted to \$62.1 billion.

17.1.2 Department stores

Department stores are defined as general merchandise stores which carry several commodity lines such as clothing, furniture, appliances and home furnishings, of which no single category represents more than 50% of total sales revenue. Within a retail location, goods are usually displayed in separate departments and the accounting is done on a departmental basis.

Table 17.3 shows data on department store sales for the period 1984 to 1987. With sales in 1987 of \$12.9 billion, department stores represented the third largest component of the retail sector. Faced with strong competition from the specialty chain stores in recent years, the market share held by department stores has declined from 9.8% in 1984 to 8.4% in 1987. Junior department stores, defined as retailing entities selling the same wide range of goods as the more traditional major department stores but popularly described as discount operations, had sales of \$5.2 billion in 1987, up 5.5% from 1986. Major department store organizations recorded

total sales of \$7.7 billion, a decline of 1.2% from 1986.

Of the 14 department store organizations in operation as of December 1987, nine were considered major department stores, operating a total of 309 separate locations. Five were considered junior department store organizations and operated in 507 locations.

At the department level, 27 of the 40 departments covered by the Statistics Canada survey recorded higher sales in 1987, compared with 1986. The largest percentage increases were reported for repairs and services (18.8%), receipts from meals and lunches (18.1%), and lamps, pictures, mirrors and other home furnishings (14.3%). The largest decrease was for food and kindred products 33.3%. Other decreases ranged from 20.9% for women's and misses' furs to 0.9% for women's and misses' coats and suits.

17.1.3 New motor vehicle sales

Because of the importance of the automobile industry in Canada, retail sales of new cars constitute one of the leading indicators of Canadian economic performance, and represent a major component of total personal expenditure for consumer goods and services in the Gross Domestic Product.

The automotive sector, which had been the most seriously affected by the recession of 1982, also enjoyed the strongest initial recovery. Retail sales of new motor vehicles posted record rates of growth (24% to 29%) in 1983, 1984 and 1985, before moderating to increases of 9.8% and 12.0% in 1986 and 1987, respectively. Total sales of new motor vehicles in 1987 amounted to \$24.5 billion, of which 64% (\$15.7 billion) represented sales of passenger cars and 36% (\$8.7 billion) were sales of commercial vehicles.

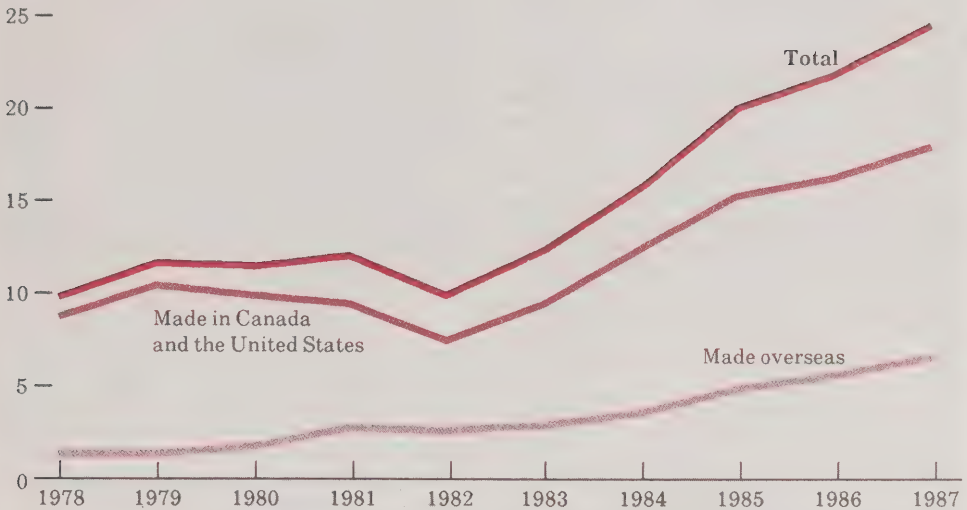
A deceleration in the demand for passenger cars which occurred in 1986 and again in 1987 was partly offset by strong growth in the commercial vehicle sector. Unit sales of new passenger cars, which amounted to 1.1 million vehicles in 1987, barely maintained the level reached in 1985, despite continued efforts by automotive manufacturers to stimulate sales through innovative financing programs.

North American manufacturers held 65.8% of the Canadian passenger car market in 1987 (based on unit sales), compared with a share of 69.5% in 1986. Japanese manufacturers held the major share (66.8%) of the Canadian imported passenger car market in 1987. Sales by North American manufacturers accounted for 89.0% of the domestic truck and bus market in 1987, compared with a market share of 87.6% in 1986.

Chart 17.1

Retail sales of new motor vehicles

Billion dollars



Statistics on new motor vehicles are obtained by the Retail Trade Section, Industry Division, of Statistics Canada directly from Canadian manufacturers and from importers or Canadian distributors of new motor vehicles. These sources supply both the number of motor vehicles sold by their dealer network and the total retail value of sales. The unit data may differ from other data available, such as factory shipments and registrations, owing to variations in definition and treatment of new vehicles in relation to the different concepts used in each survey.

17.1.4 Campus bookstores

Retail trade statistics are collected annually from more than 300 bookstores on the campuses of universities and other postsecondary educational institutions. Owing to their location and the seasonal nature of their business, campus bookstores are not included in the monthly estimates of retail trade. From 1984 to 1987 total retail sales by campus bookstores increased by 40.9% from \$211.8 million to \$298.4 million. In the 1986-87 academic year, 62.5% of the total sales were accounted for by textbooks; 8.5% by other books; 11.5% by stationery and supplies; and 17.5% by sales of all other merchandise.

17.1.5 Non-store retailing

Consumer goods, in addition to being sold in retail stores, often reach the household consumer through other marketing channels. These channels bypass the retail outlet in moving from primary producer, manufacturer, importer, wholesaler or specialized direct seller, to the household consumer. Statistics Canada conducts annual surveys of two forms of non-store retailing: merchandise sales through automatic vending machines, and sales by manufacturers and distributors specializing in direct marketing through such methods as house-to-house canvassing, mail order catalogues, TV home shopping programs, and house parties.

Vending machine sales. This survey is designed to measure the value of merchandise sales made through automatic vending machines owned and operated by independent operators and subsidiaries or divisions of manufacturers and wholesalers of vended products. Excluded from coverage are sales through vending machines owned and operated by retail stores, restaurants and service stations; these sales statistics are usually inextricable from data collected in the course of other surveys.

During 1986, the 698 operators of 158,177 vending machines covered by this survey reported

sales of \$387.2 million, an increase of 5.4% from the 1985 total of \$367.3 million. Sales through the following types of machine were chiefly responsible for the increase in receipts between 1985 and 1986: coffee machines, which increased by 19.1% and accounted for 25.1% of the total revenue; and soft drink machines, which increased by 7.2% and represented 21.0% of total vending machine sales.

Direct selling refers to the sale of consumer goods to household consumers for personal use, by other than the regular retail store. Direct sales occur at all levels in the movement of goods from the primary producer or importer to the consumer: at the agricultural level, by greenhouse and nursery operators and some market gardeners; at the manufacturing stage, through sales to employees or to the general public at company-operated on-premises stores; or through home delivery of such products as newspapers and milk; by some wholesalers and importers; and by firms which specialize in direct retailing.

In 1986, Canadian householders spent \$2.5 billion on direct purchases of a wide variety of consumer goods (Table 17.8). Major commodities handled by these direct selling businesses in 1986 included: newspapers, \$371.0 million; dairy products, \$279.9 million; books, \$248.8 million; cosmetics and personal care products, \$192.2 million; and household electrical appliances, \$183.7 million.

Personal selling, through individual canvassing or group demonstrations such as house parties, is the best known of the various methods of direct selling and accounted for \$807.3 million or 31.7% of the total spent on direct purchases in 1986. Sales by mail and telephone order amounted to \$673.5 million and comprised 26.5% of total direct sales. (The data on mail-order purchases do not include foreign mail-order sales made to Canadians nor the mail-order sales of Canadian department stores.) Sales by all other methods (including home-delivered newspapers and dairy products, factory showrooms, roadside stands and newspaper coin boxes) amounted to \$1.1 billion or 41.8% of total direct sales in 1986.

Market research. Much of the data on distributive trades is brought together with other industrial and demographic data in an annual publication entitled *Market Research Handbook* (Statistics Canada 63-224). The basic purpose of this handbook is to provide a convenient source of information and reference for people who are engaged in analyzing Canadian markets at local, provincial, regional and national levels. The handbook indicates trends by showing data for earlier years

as well as reporting the latest available information. These data should help the marketing practitioner in assessing the dynamics of marketing, such as population growth, demographic characteristics, income distribution and changes in consumer habits.

17.2 Service industries

In the early 1980s, Statistics Canada launched a new initiative to collect and publish data for industries providing specialized services to businesses and households. A comprehensive inquiry had not been made in these areas since the 1971 Census of Merchandising and Services. As a result of this initiative, annual data are now available on many service industries for the period from 1982 to 1986 inclusive.

Among the statistical information available, estimates of total revenue and numbers of businesses are among the most widely used types of data. They are used to determine the size and structure of industries supplying services, and in monitoring their cyclical behaviour. The following sections provide a brief overview of industries providing business services, amusement and recreation services, and personal and household services in Canada.

17.2.1 Business services

Industries covered in this category are in the business service industries and other service industries major groups. Firms in these industry groups generally engage in providing services primarily to business communities rather than to government or the general public.

Estimates for 1986, the latest year for which information is available, indicated that the measured portion of business services was a \$16 billion major group comprising over 50,000 businesses. (Several industries, such as accounting, legal and management consulting services were not covered by regular surveys, and thus were not included in these figures). While only 15% of the businesses earned more than \$250,000 a year, they accounted for slightly more than 80% of the total revenue in this major group. By comparison, in the measured portion of other service industries, there were approximately 40,000 firms with combined earnings of \$10 billion in 1986. Approximately 10% of the businesses in this major group earned more than \$250,000 per annum and accounted for almost 80% of the total business income.

17.2.2 Leisure and personal services

The leisure and personal services category encompasses both amusement and recreation, and

personal and household services major groups. Generally, the services are consumed by individuals, although business demand can be significant, as in the case of linen supply.

The amusement and recreation, and personal and household services major groups had combined earnings of \$8 billion from 52,000 businesses, according to estimates for 1986. Amusement and recreation, with over 16,000 companies, had earnings of \$4.5 billion (over a third of which originated in the motion picture production, distribution and exhibition industries). Small businesses, generating less than \$250,000 in sales, accounted for 84% of the businesses in the industry group, and earned 19% of the total income. By comparison, in the personal and household services major group, nearly 95% of the businesses earned less than \$250,000, yet they generated almost half of the total revenue.

Table 17.10 presents total revenue and number of businesses for 1984 to 1986, for the industries included in these two major groups.

17.2.3 Food and beverage service industry

In January 1980, a sample survey of the food and beverage service industry was introduced by Statistics Canada to produce monthly estimates of receipts for licensed, unlicensed and take-out restaurants, and for caterers and taverns.

In 1987, restaurant, caterer and tavern receipts were estimated at \$14.2 billion, an increase of 10% over the 1986 estimate of \$12.9 billion. The 1987 estimate for licensed restaurants was \$6.3 billion; unlicensed restaurants, \$4.1 billion; take-out restaurants, \$1.8 billion; caterers, \$1.1 billion; and taverns, \$1.0 billion. More detailed information is available monthly in the Statistics Canada publication 63-011, *Restaurants, Caterers and Taverns*.

17.3 Wholesale trade

Wholesalers are primarily engaged in buying merchandise for resale to retailers; to industrial, commercial, institutional and professional users; to other wholesalers; to farmers for use in farm production; or for export. Or they act as agents in connection with such transactions. Businesses engaged in more than one activity, such as wholesaling and retailing or wholesaling and manufacturing, are considered to be primarily in wholesale trade if the greater part of their gross margin (the difference between the total sales and the cost of goods sold) is due to their wholesaling activity.

Wholesale trade statistics measure the total volume of trade conducted by all wholesale

businesses operating in Canada, whether they are Canadian-owned or subsidiaries of foreign companies and include both domestic and export sales. The total volume of trade measured by Statistics Canada cannot be equated with the value of goods passing through the wholesale sector of the economy because, at times, wholesale businesses sell to each other and thus the value of the same merchandise may be recorded more than once.

According to certain common characteristics, each wholesale establishment and location (wholesale outlet) is assigned to one of the following two principal types of operation:

Wholesale merchants — establishments or locations primarily engaged in buying and selling goods on their own account. Included in this category are wholesalers known as: drop shippers or desk jobbers, export merchants, import merchants, mail-order wholesalers, rack jobbers or voluntary general wholesale distributors.

Agents and brokers — establishments or locations primarily engaged in buying or selling, on a commission basis, products owned by others. They may be known as an auction company, commission merchant, import agent or broker, export agent or broker, manufacturer's agent, purchasing agent or resident buyer and selling agent.

17.3.1 Wholesale merchants

Preliminary data for 1986 placed the total volume of trade (merchants and agents) at \$235.2 billion, up slightly from \$231.7 billion reported in 1985. Wholesale merchants accounted for approximately 85% of the volume of trade in both years, \$199.7 billion in 1986 and \$195.3 billion in 1985. The most noticeable increases in the volume of trade were reported by wholesalers of household furniture and house furnishings (17.6%), apparel and dry goods (17.4%), lumber and building materials (16.5%) and electrical machinery, equipment and supplies (15.7%). Contrasted to these increases were significant decreases reported in 1986 over 1985 by wholesalers of coal, coke and petroleum products (-22.4%), farm products (-8.8%), and wholesalers of paper and paper products (-1.7%). With these decreases, the 1986 volume of trade rose only 2.2% over 1985.

Wholesalers of electrical, farm and industrial machinery accounted for 20.3% of the total volume of trade in 1986. The previous year, the same group accounted for 19.3%. The food group, which had reached 16.0% in 1985, increased its share slightly to 16.7% in 1986. The share of dealers in petroleum products (including coal and coke) declined to 11.6% in 1986, compared with 15.3% in 1985, while the share of

wholesalers of primary producers of farm products dropped from 8.9% in 1985 to 7.9% in 1986.

In terms of geographical distribution of the volume of trade, wholesale merchant establishments in Ontario and Quebec accounted for 65.1% of the total volume in 1986, up from 63.1% in 1985 and 61.7% in 1984. Establishments in the Atlantic provinces claimed 3.9% in 1986, virtually unchanged from previous years, while merchants in Western Canada and the Yukon and Northwest Territories achieved 30.9%, down from 32.9% in 1985 and 34.3% in 1984.

Tables 17.12 and 17.13 show the volume of trade of wholesale merchant establishments for the years 1983-86. It must be noted that the total volume of trade reported by establishments with sales outlets in more than one province have their volume of trade assigned to the province in which the establishment's head office is located. Accordingly, the volume of trade cited for a particular province included sales and commissions earned on sales to customers in other provinces.

17.3.2 Agents and brokers

Establishments operating as agents and brokers reported earnings of \$1,039.5 million in gross commissions (compared with commissions of \$1,090.8 million in 1985), according to preliminary 1986 data. These commissions were earned on goods sold, with an estimated value of \$33,895.2 million (compared with goods valued at \$34,777.3 million in 1985). Commissions as a percentage of the value of goods bought or sold on commission were unchanged at 3.1% in 1986 and 1985. In terms of the volume of trade reported by the 4,534 establishments classified as agents or brokers, the volume of trade in 1986 (preliminary data) totalled \$35.5 billion compared with \$36.4 billion by 4,800 establishments in 1985.

As in previous years, the greatest share of total commissions was reported in 1986 by the agent and broker establishments in the petroleum products group at 20.5%, with commissions of \$212.9 million on goods valued at \$3,702.8 million. In 1985 and 1984, the petroleum products group had reported commissions of \$232.4 million and \$232.6 million, respectively, on goods valued at \$5,070.6 million and \$4,773.8 million, respectively, for a 21.7% share of total commissions earned in 1985 and 24.0% in 1984. The farm products industry group provided the second largest source of agents' commission income in 1986, with \$170.6 million of commissions on goods valued at \$8,086.6 million, as compared

with commissions of \$244.3 million on goods valued at \$8,006.6 million in 1985.

Table 17.14 shows the volume of trade of agent and broker establishments, for the years 1983-86. Table 17.15 shows the gross commissions earned by agent and broker establishments, for the years 1983-86.

17.3.3 Control and sale of alcoholic beverages

The retail sale of alcoholic beverages in Canada is controlled by provincial and territorial government liquor control authorities. Alcoholic beverages are sold directly by most of these authorities to the consumer or to licensees for resale. However, in some provinces beer and wine are sold directly by breweries and wineries to consumers or to licensees for resale. During the year ended March 31, 1987, provincial government liquor authorities operated 1,777 retail stores and had 616 agencies in smaller centres.

Table 17.18 shows the value and volume of sales of alcoholic beverages in the years ended March 31, 1984-87. The value does not always represent the final retail selling price to the consumer because in some cases only the selling price to licensees is known. Volume of sales is a more realistic indicator of trends in consumption, but as a measure of personal consumption by Canadians it is subject to the same limitations as value sales and includes, in addition, purchases by non-residents.

Government revenue specifically related to alcoholic beverages and details of sales by value and volume for each province are given in Table 17.19. *The control and sale of alcoholic beverages in Canada* (Statistics Canada 63-202) shows further detail as well as volume figures of production and warehousing transactions, the value and volume of imports and exports, and the assets and liabilities of provincial liquor commissions.

17.4 Co-operatives

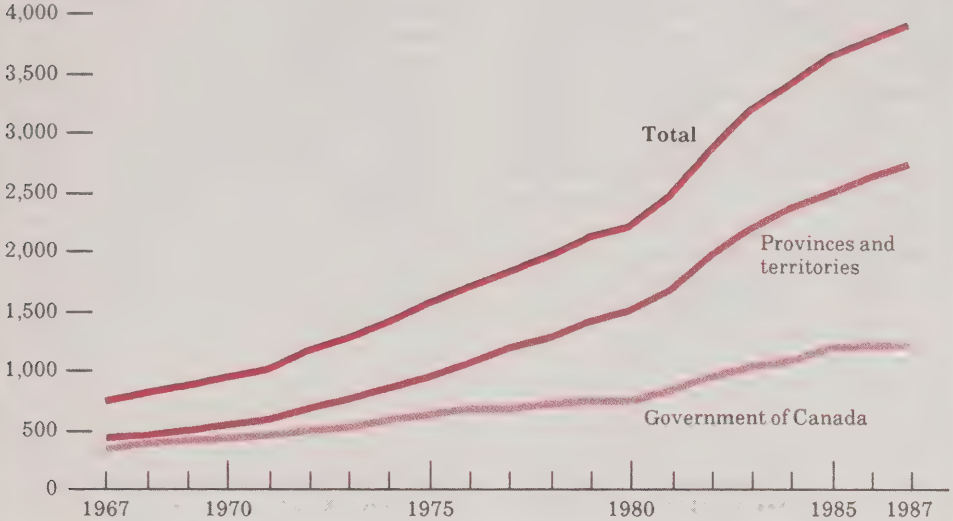
A co-operative is an incorporated, non-profit business organized on a voluntary basis to meet the economic, social or cultural needs of its members. All members share control of and responsibility for the co-operative, and benefits are returned to the members in proportion to their use of the services.

The co-operative movement in Canada started among the pioneer farmers. Over the decades the co-operative method spread to embrace a great many types of economic and social activities involving farmers, consumers, tradesmen, fishermen and others.

Chart 17.2

Revenue of all governments from the sale of alcoholic beverages

Million dollars



Co-operatives in 1987. Business volume of Canadian co-operatives amounted to \$14.0 billion — a gain of 2% over 1986.

Farm product marketings rose 3% to \$7.6 billion. Grain and oilseed marketings declined for a third straight year, despite a record grain crop and record exports, as world prices fell with overabundant supplies. However, with the exception of fruit, honey and maple, other marketings as a group rose 8%. Cattle, fish, hog, vegetable and forest product marketings climbed to higher prices while poultry benefited from a continuing long-term rise in consumption and dairy marketings increased moderately in a stable market.

Consumer and supply sales edged up about 1% to \$5.2 billion. Consumer goods sales rose 4% while agriculture supply sales slid 3% on lower volume for feed, fertilizer and pesticides, with plentiful grain supplies in most areas of the country. Petroleum volume recovered somewhat from the previous year's drop as did building materials after four years of decline. Machinery sales climbed for a second year after several years on the downside.

Service revenues increased 2% to \$950 million as a downturn in grain related revenues partially

offset a composite gain of about 5% for housing, natural gas, day care/nursery and funeral co-operatives.

Co-operative assets were reduced by 4% or almost \$300 million to \$6.4 billion as the severe markdown in the values of Prairie grain inventories outweighed modest gains elsewhere. Members' equity (ownership) as a percentage of total assets rose three points to 42%.

Co-operative membership expanded 2% to approximately 3.1 million persons.

Co-operatives in 1986. Co-operative business volume eased off \$744 million or slightly more than 5% in 1986, with a fairly large decline in product marketings, a small decline in consumer and supply sales, and a good gain in service revenue. It was the second down year after reaching a record high in 1984.

The western region approximately matched the overall loss in dollars and surpassed it in percentage, down almost eight points. In the eastern region, a 2% slide in Quebec was offset by a small gain in Ontario and a solid increase of almost 5% in Atlantic Canada. Grains and oilseed marketings in the West, consumer sales in Quebec and feed sales across the country were the principal causes of the revenue downturn in the year.

The surrounding economic environment for the co-operatives included another year of growth at a more moderate pace — Gross Domestic Product was up 6.4%, compared to 7.6% in 1985. Farm cash receipts rose 3%, but due to falling expenses, realized net farm income soared 27%, although many farmers continued in serious financial straits. Unemployment eased to 9.6% from 10.5%, personal disposable income rose 5.4% and the prime interest rate declined approximately three points from its early year peak of 13%.

Co-operative assets increased almost 8% on expanding volumes of lower priced grain inventories and continued expansion in the housing sector to a total of \$6,690 million.

Reporting co-operatives eased 2% with all regions, except the Atlantic, contributing. Membership edged up over the three million mark for the first time ever.

17.5 Tourism

Tourism — the business of attracting visitors and catering to their needs and expectations — is one of Canada's major economic sectors. It is an industry worth \$21 billion a year to the Canadian economy, constituting 4% of Canada's Gross National Product, and involves more than 60,000 businesses, most of them small and Canadian-owned. About 600,000 people are directly employed in the industry to look after the needs of visitors.

Foreign visitors spent about \$6.3 billion on tourism products and services in 1987, making the tourist industry Canada's third highest earner of foreign exchange.

Canada's tourism businesses include approximately 300,000 hotel and motel rooms, about 72,000 restaurants and food-service facilities, and about 3,100 travel agencies. It's also a kaleidoscope of facilities and attractions — festivals and special events, shopping and entertainment centres, museums, scenic parks, marinas and a coast-to-coast transportation system.

Although many government departments and agencies are involved to some extent in various aspects of tourism, the main federal co-ordinating and promoting agency — the focal point of these endeavours — is Tourism Canada, a branch of Industry, Science and Technology Canada (ISTC). Tourism Canada's objective is to encourage and support the economic growth, excellence and international competitiveness of the tourism industry in all parts of Canada.

Tourism Canada works closely with the provinces and territories and with the private sector. The federal government's national consultative

process on the future of tourism in Canada opened a dialogue with the Canadian tourism industry in 1985, which led to the institution of an industry symposium at the annual conference of tourism ministers in 1988. Major research projects have helped to target marketing ventures, and recent attention, of governments at every level, has been concerned with making the Canadian tourism product internationally competitive.

Tourism Canada carries out programs which concern the country as a whole, such as international advertising campaigns and joint promotional ventures that are designed to assist different sectors of the industry. Assistance at the local level is available through the regional offices of ISTC, located in every province and territory. Each office has tourism specialists who act as contact points for provincial and industry officials, providing information on tourism incentive and marketing programs, consultation on industry concerns and liaison with their counterparts in Ottawa. Outside Canada, the responsibility for delivering the tourism program rests with the federal Department of External Affairs. Working in co-operation with Tourism Canada, External Affairs operates from offices in more than 100 embassies and consulates throughout the world, of which 20 have a dedicated tourism program.

Dollar figures demonstrate the economic importance of the industry in Canada. Tourism revenues totalled \$20.7 billion in 1987, up from \$19.7 billion in 1986. Of the 1987 total, Canadian travellers contributed \$14.4 billion, US visitors, \$4.2 billion, and offshore visitors, \$2.1 billion. Total Canadian spending on travel was \$23.3 billion, including \$5.2 billion in the United States and \$3.7 billion offshore.

The number of world visitors who arrived in Canada in 1987 to spend one night or more totalled 15.0 million. Included were 12.7 million from the United States (up 21% from 1982), 446,400 from the United Kingdom, 240,000 from the Federal Republic of Germany, 253,000 from Japan, and 189,000 from France.

17.6 Consumer affairs legislation

Consumer and Corporate Affairs Canada administers federal legislation and policies affecting business, and demonstrates that a competitive marketplace can benefit consumers, business people and investors. The following bureaus share responsibility for achieving the department's marketplace objectives.

The consumer affairs bureau co-ordinates government activities in the field of consumer affairs

through four branches: consumer services, legal metrology, consumer products, and product safety. The corporate affairs bureau administers legislation and regulations pertaining to corporations; its branches are responsible for corporations, bankruptcy and securities. The bureau also administers laws pertaining to patents, copyright, timber marks, industrial design, and trade marks, with a branch responsible for each of these fields. The Bureau of Competition Policy was recently reorganized and now has branches specializing in economics and regulatory affairs, marketing practices, mergers, resources and manufacturing, and services, as well as a new directorate charged with compliance policy and management coordination.

The department maintains regional offices in Vancouver, Winnipeg, Toronto, Montreal and Halifax, and district and local offices in other cities. These offices ensure that laws and regulations administered by the department, with the exception of the statutes administered by the corporations branch, are uniformly applied and interpreted in all parts of the country. The field force includes regional consumer consultants, inspectors and specialists in the fields of bankruptcy and marketing practices.

Competition legislation. The Competition Act, which was significantly amended in 1986, was designed to maintain and encourage competition in Canada in order to promote the efficiency and adaptability of the Canadian economy; to expand opportunities for Canadian participation in world markets while recognizing the role of foreign competition in Canada; to ensure that small and medium-sized businesses have an equitable opportunity to participate in the Canadian economy; and to provide consumers with competitive prices and product choices. The director of investigation and research, who is the head of the Bureau of Competition Policy, has responsibility for the administration and enforcement of this Act.

The Competition Act prohibits a number of offences such as agreements to unduly lessen competition, price maintenance, predatory pricing and misleading advertising. The Act also covers a number of reviewable matters, which may or may not, depending on the circumstances, raise competitive concerns, such as tied selling, delivered pricing, abuse of dominant position, mergers and specialization agreements.

In carrying out his/her responsibilities, the director stresses the promotion of continuing voluntary compliance with the Act and relies on a broad range of responses to non-compliant behaviour, ranging from investigative visits to

contested proceedings before the courts or the Competition Tribunal.

The 1986 amendments to the Act gave the director significant new responsibilities in relation to mergers. The notifiable transactions provisions of the Act help the director to carry out these responsibilities by requiring persons who are proposing certain large acquisitions, amalgamations or combinations to notify the director and supply him/her with certain information in advance.

The Act also authorizes the director, in certain circumstances, to make representations and call evidence in respect of competition before regulatory boards, commissions and other tribunals.

Food. Consumer and Corporate Affairs Canada is responsible for regulation on behalf of the consumer of the quality, quantity, composition, packaging, labelling and advertising of food products, by the administration of portions of the Food and Drugs Act, the Canada Agricultural Products Standards Act, the Fish Inspection Act and the Consumer Packaging and Labelling Act.

Measurement. The legal metrology branch is responsible for minimizing inaccurate measurement and ensuring equity in trade of commodities and services provided on the basis of measurement. The branch administers the Electricity and Gas Inspection Act and the Weights and Measures Act, as well as sharing responsibilities for the quantity provisions of the Consumer Packaging and Labelling Act, Fertilizers Act, Feeds Act, Seeds Act and the Pest Control Products Act. Measurement control is accomplished by defining units of measure, calibrating and certifying standards to achieve uniformity, inspecting and approving new trade devices for compliance with regulations and verifying approved devices prior to use. Legal metrology also provides marketplace surveillance to identify non-compliance and enforce the provisions of the legislation. Under the Electricity and Gas Inspection Act, the director is empowered to accredit utilities, manufacturers and third parties to carry out meter verification, subject to standards established by the branch and subject to periodic satisfactory audits.

The corporations branch of Consumer and Corporate Affairs Canada administers the Canada Business Corporations Act, the Canada Corporations Act, the Canada Co-operatives Association Act and the Boards of Trade Act. The branch has a statutory duty to issue formal documents in connection with corporations created under other federal acts such as the Loan Companies Act, Trust Companies Act, the Canadian and British Insurance Companies Act, and the Railway Act.

All federal business corporations other than those carrying on business as financial intermediaries must be incorporated under the Canada Business Corporations Act. Federal non-profit corporations continue to be incorporated under Part II of the Canada Corporations Act until a proposed new Non-profit Corporations Act is passed by Parliament.

17.7 Government aid to business

Government programs are available to help in several stages of developing a business by providing financing, information or technical guidance.

Start-up stage. The success of a business operation can be influenced by the initial research and investigation. Agencies such as the Federal Business Development Bank offer training, counselling and information for new entrepreneurs. Statistics Canada can provide data on potential business localities. The Department of Industry, Science and Technology (DIST) may provide information through its small business secretariat or its business information centres in 10 major cities across Canada.

Financing. One of the most common problems businesses face is obtaining adequate debt and equity financing, whether for start-up or expansion. The main types of financial assistance offered by the federal government are loan guarantees and insurance, loans, grants and tax measures. The Federal Business Development Bank also offers equity financing through its investment banking division.

Marketing. Product marketing involves identifying, investigating, and developing both domestic and export markets. Whether a new business is being started or an existing product line is being expanded, a thorough marketing plan can better its chances of success. Several sources of information are available from the federal government to assist with market investigation. Export assistance is available through the Department of External Affairs and through the Federal Business Development Bank to help finance the sale of products in export markets. Aid in market investigation and product promotion is also

available through the Department of External Affairs.

Research and development. Financial support for industrial research, innovation and product development is offered by the federal government to specific industrial sectors. Up-to-date information is available on new inventions and developments. Various government testing and laboratory facilities provide support services to the business community.

Expansion. Some federal programs may be of assistance in modernizing a firm or making major adjustments because of changing market conditions. For example, loan guarantees and other financing support are available for modernization in slow-growth areas. Tax concessions are provided in other instances.

Developing the work force. To function efficiently a business needs good workers with the right skills. A wide range of federal services and programs helps employers obtain employees with the skills necessary to meet current and anticipated future needs. This includes assistance for occupational training and support of industry through the development of workers. Various programs stress the retraining of workers displaced by technological change and support for training new workers in high-level skills that are critical for future industrial development. Departments and agencies including the Canada Employment and Immigration Commission (CEIC) and Labour Canada provide assistance in recruiting, collective bargaining, employee relations and management development.

ABC handbook. Occasionally federal and provincial programs may either overlap or be complementary to one another. A review of all the assistance programs oriented to a specific business sector will lead to the most beneficial results for an enterprise.

The Federal Business Development Bank publishes an ABC handbook, *Assistance to Business in Canada*, as a part of the federal government commitment to support the Canadian business community. The fourth edition of the series published in 1988 has 10 volumes. Each one lists programs by department or agency and adds a supplement on the programs of a particular province or provincial and adjacent territorial region.

Sources

- 17.1 – 17.3.2 Business and Trade Statistics, Statistics Canada.
- 17.3.3 Public Institutions Division, Statistics Canada.
- 17.4 Co-operatives Secretariat, Agriculture Canada.
- 17.5 Information Services, Tourism Canada.
- 17.6 Communications Branch, Consumer and Corporate Affairs Canada.
- 17.7 Public Affairs, Federal Business Development Bank.

FOR FURTHER READING

Selected publications from Statistics Canada

- New Motor Vehicle Sales, monthly. 63-007
- The Control and Sale of Alcoholic Beverages in Canada, annual. 63-202
- Retail Chain and Department Stores, annual. 63-210
- Direct Selling in Canada, annual. 63-218
- Computer Service Industry, annual. 63-222
- Market Research Handbook, annual. 63-224
- Wholesale Trade Statistics, Wholesale Merchants, Agents and Brokers, annual. 63-226
- Selected Service Industries in Canada, annual. 63-231. Discontinued, last issue 1985.

More information about these publications is available from Statistics Canada. See Appendix F for a complete list of Statistics Canada offices.

TABLES

- .. not available
 ... not appropriate or not applicable
 — nil or zero
 -- too small to be expressed
- e estimate
 p preliminary
 r revised
 certain tables may not add due to rounding

17.1 Retail trade, by kind of business and by province, percentage and percentage distribution, 1984-87

Kind of business and province	1984 \$'000,000	1985 \$'000,000	1986 \$'000,000	1987 \$'000,000	Percentage change 1986-87	Percentage distribution 1987
Kind of business						
Combination stores (groceries and meat)	22,341.4	23,776.7	25,025.9	26,775.1	7.0	17.4
Grocery, confectionery and sundries stores	5,703.1	6,154.8	7,000.9	7,690.9	9.8	5.0
All other food stores	2,144.6	2,325.6	2,602.3	2,805.7	7.8	1.8
Department stores	11,384.9	12,038.6	12,728.5	12,906.0	1.4	8.4
General merchandise stores	2,395.1	2,698.9	2,858.3	3,063.8	7.2	2.0
General stores	1,890.9	1,982.7	2,097.4	2,263.5	7.9	1.5
Variety stores	1,207.0	1,266.9	1,247.0	1,073.6	-13.9	0.7
Motor vehicle dealers	20,846.5	26,026.6	28,687.7	32,248.1	12.4	21.0
Used car dealers	559.0	654.9	799.3	1,032.6	29.2	0.7
Service stations	9,732.5	11,100.7	10,762.9	12,276.8	14.1	8.0
Garages	1,580.9	1,484.2	1,544.8	1,699.1	10.0	1.1
Automotive parts and accessories stores	2,606.2	2,801.8	3,068.2	3,440.3	12.1	2.2
Men's clothing stores	1,323.5	1,324.1	1,437.8	1,583.1	10.1	1.0
Women's clothing stores	2,396.4	2,777.2	3,035.6	3,256.4	7.3	2.1
Family clothing stores	1,575.4	1,867.4	2,079.5	2,244.0	7.9	1.5
Specialty shoe stores	162.8	212.0	249.6	300.0	20.2	0.2
Family shoe stores	1,008.3	1,075.8	1,175.3	1,196.4	1.8	0.8
Hardware stores	1,046.5	1,157.6	1,432.4	1,609.9	12.4	1.0
Household furniture stores	1,698.7	1,542.2	1,614.5	1,879.3	16.4	1.2
Household appliance stores	453.0	527.4	557.8	634.8	13.8	0.4
Furniture, TV, radio and appliance stores	831.5	1,144.9	1,487.0	1,683.7	13.2	1.1
Pharmacies, patent medicine and cosmetics stores	4,727.2	5,356.6	6,064.4	6,691.5	10.3	4.4
Book and stationery stores	565.3	715.4	785.8	896.2	14.0	0.6
Florists	452.8	471.5	516.5	581.9	12.7	0.4
Jewellery stores	867.1	932.0	1,042.2	1,136.9	9.1	0.7
Sporting goods and accessories stores	1,640.5	1,868.3	2,029.0	2,342.3	15.4	1.5
Personal accessories stores	1,559.3	1,719.4	2,049.5	2,396.9	17.0	1.6
All other stores	13,379.8	14,442.3	16,028.2	18,024.1	12.5	11.7
Total	116,079.9	129,446.3	140,009.3	153,732.8	9.8	100.0
Province or territory						
Newfoundland	2,071.1	2,254.1	2,406.6	2,755.2	14.5	1.8
Prince Edward Island	520.7	547.5	577.3	640.6	11.0	0.4
Nova Scotia	4,048.0	4,579.6	4,796.1	5,225.3	8.9	3.4
New Brunswick	2,927.4	3,171.5	3,482.4	3,794.2	9.0	2.5
Quebec	29,005.9	31,782.3	34,593.2	38,865.8	12.3	25.3
Ontario	43,465.7	49,003.6	53,411.9	59,039.3	10.5	38.4
Manitoba	4,513.7	5,200.8	5,444.4	5,769.5	6.0	3.7
Saskatchewan	4,354.4	4,704.0	4,999.2	5,254.4	5.1	3.4
Alberta	11,833.4	13,523.5	14,338.4	14,855.3	3.6	9.7
British Columbia	13,004.6	14,303.6	15,567.0	17,116.5	10.0	11.1
Yukon and Northwest Territories	334.8	375.8	392.8	416.7	6.1	0.3

17.2 Sales of chain and independent stores, by kind of business, 1984-87

Kind of business	Chain stores			Independent stores		
	1984 \$'000,000	1985 \$'000,000	Per- centage change 1984-85	1984 \$'000,000	1985 \$'000,000	Per- centage change 1984-85
Combination stores (groceries and meat)	14,420.9	15,326.4	6.3	7,920.4	8,450.3	6.7
Grocery, confectionery and sundries stores	1,704.8	1,868.3	9.6	3,998.4	4,286.4	7.2
All other food stores	197.9	224.0	13.2	1,946.6	2,101.6	8.0
Department stores	11,384.9	12,038.6	5.7	---	---	---
General merchandise stores	1,904.9	2,123.8	11.5	490.2	575.0	17.3
General stores	782.7	829.6	6.0	1,108.3	1,153.1	4.0
Variety stores	1,026.4	1,105.3	7.7	180.6	161.6	-10.5
Motor vehicle dealers	223.0	380.7	70.7	20,623.5	25,645.9	24.4
Used car dealers	---	---	---	559.0	654.9	17.2
Service stations	2,151.6	2,826.3	31.4	7,580.9	8,274.4	9.1

17.2 Sales of chain and independent stores, by kind of business, 1984-87 (concluded)

Kind of business	Chain stores			Independent stores		
	1984 \$'000,000	1985 \$'000,000	Per- centage change 1984-85	1984 \$'000,000	1985 \$'000,000	Per- centage change 1984-85
Garages	—	—	—	1,580.9	1,484.2	-6.1
Automotive parts and accessories stores	214.4	215.1	0.3	2,391.8	2,586.7	8.1
Men's clothing stores	720.7	705.2	-2.2	602.8	618.9	2.7
Women's clothing stores	1,525.3	1,796.7	17.8	871.0	980.5	12.6
Family clothing stores	1,003.1	1,252.1	24.8	572.3	615.3	7.5
Specialty shoe stores	75.6	111.8	47.9	87.1	100.2	15.0
Family shoe stores	751.2	805.1	7.2	257.1	270.7	5.3
Hardware stores	—	199.5	—	—	958.1	—
Household furniture stores	517.7	426.6	-17.6	1,180.9	1,115.6	-5.5
Household appliance stores	—	57.2	—	—	470.2	—
Furniture, TV, radio and appliance stores	357.9	573.8	60.3	473.6	571.1	20.6
Pharmacies, patent medicine and cosmetics stores	1,374.1	1,559.9	13.5	3,353.2	3,796.7	13.2
Book and stationery stores	316.4	414.4	31.0	248.9	301.0	20.9
Florists	34.1	21.7	-36.4	418.8	449.8	7.4
Jewellery stores	454.7	478.2	5.2	412.4	453.8	10.0
Sporting goods and accessories stores	238.2	295.5	24.1	1,402.3	1,572.8	12.2
Personal accessories stores	591.7	661.7	11.8	967.7	1,057.8	9.3
All other stores	7,578.3	8,010.5	5.7	5,801.4	6,431.8	10.9
Total	49,794.4	54,308.0	9.1	66,285.5	75,138.3	13.4
	Chain stores			Independent stores		
	1986 \$'000,000	1987 \$'000,000	Per- centage change 1986-87	1986 \$'000,000	1987 \$'000,000	Per- centage change 1986-87
Combination stores (groceries and meat)	16,207.4	17,282.3	6.6	8,818.7	9,492.8	7.6
Grocery, confectionery and sundries stores	2,086.9	2,130.6	2.1	4,915.0	5,560.2	13.1
All other food stores	245.7	290.8	18.4	2,356.6	2,514.9	6.7
Department stores	12,728.5	12,906.0	1.4	—	—	—
General merchandise stores	2,159.5	2,275.6	5.4	698.7	788.2	12.8
General stores	849.9	945.2	11.2	1,247.5	1,318.3	5.7
Variety stores	1,087.1	915.2	-15.8	159.9	158.4	-0.9
Motor vehicle dealers	413.9	411.4	-0.6	28,273.8	31,836.7	12.6
Used car dealers	—	—	—	799.3	1,032.6	29.2
Service stations	2,810.8	3,528.3	25.5	7,952.1	8,748.4	10.0
Garages	—	—	—	1,544.8	—	—
Automotive parts and accessories stores	206.7	218.8	5.9	2,861.5	3,221.6	12.6
Men's clothing stores	789.2	885.4	12.2	648.6	697.7	7.6
Women's clothing stores	1,991.8	2,191.2	10.0	1,043.8	1,065.1	2.0
Family clothing stores	1,420.6	1,586.3	11.7	658.8	657.7	-0.2
Specialty shoe stores	145.4	178.4	22.7	104.2	121.6	16.7
Family shoe stores	876.5	869.2	-0.8	298.8	327.2	9.5
Hardware stores	304.2	267.9	-11.9	1,128.2	1,342.1	19.0
Household furniture stores	420.3	457.0	8.7	1,194.2	1,422.3	19.1
Household appliance stores	72.6	85.0	17.1	485.2	549.8	13.3
Furniture, TV, radio and appliance stores	757.4	916.2	21.0	729.6	767.5	5.2
Pharmacies, patent medicine and cosmetics stores	1,796.8	2,001.5	11.4	4,267.6	4,690.0	9.9
Book and stationery stores	463.1	450.6	-2.7	322.8	445.5	38.0
Florists	23.8	—	—	492.7	—	—
Jewellery stores	513.9	538.1	4.7	528.3	598.7	13.3
Sporting goods and accessories stores	391.5	502.6	28.4	1,637.5	1,839.7	12.3
Personal accessories stores	755.1	949.0	25.7	1,294.3	1,447.9	11.9
All other stores	8,617.6	9,249.9	7.3	7,410.6	8,774.2	18.4
Total	58,136.2	62,067.8	6.8	81,873.1	91,665.0	12.0

¹ Confidential.

17.3 Department store sales by department, 1984-87

Department	1984 \$'000,000	1985 \$'000,000	1986 \$'000,000	1987 \$'000,000	Percentage change 1986-87
Women's, misses' and children's clothing					
Women's and misses' dresses,					
housedresses, aprons and uniforms	191.2	215.3	210.4	198.4	-5.7
Women's and misses' coats and suits	202.5	212.2	212.9	211.1	-0.9
Women's and misses' sportswear	654.2	724.6	817.7	869.0	6.3
Furs	40.4	46.3	41.3	32.6	-20.9
Infants' and children's wear and					
nursery equipment	292.0	307.3	376.2	389.7	3.6
Girls' and teenage girls' wear	199.9	216.5	224.7	229.7	2.2
Lingerie and women's sleepwear	239.9	240.2	240.6	257.7	7.1
Intimate apparel	130.4	138.9	156.9	177.0	12.8
Millinery	22.6	21.8	16.3	17.2	5.6
Women's and girls' hosiery	126.5	131.3	144.6	150.0	3.8
Women's and girls' gloves, mitts					
and accessories	199.6	217.7	224.4	233.6	4.1
Women's, misses' and children's footwear	301.8	317.4	363.5	382.2	5.2
Total, women's, misses' and children's clothing	2,601.0	2,789.5	3,029.5	3,148.2	3.9
Men's and boys' clothing					
Men's clothing	474.1	506.4	458.4	418.9	-8.6
Men's furnishings	574.7	627.6	778.8	871.6	11.9
Boys' clothing and furnishings	161.3	175.9	211.0	228.2	8.1
Men's and boys' footwear	195.4	209.8	216.4	223.5	3.3
Total, men's and boys' clothing	1,405.5	1,519.7	1,664.6	1,742.2	4.7
Food and kindred products	730.0	740.1	662.6	441.8	-33.3
Toiletries, cosmetics and drugs	653.0	720.6	774.9	780.5	0.7
Photographic equipment and supplies	156.7	148.7	135.2	131.2	-2.9
Piece goods	47.2	42.9	50.4	47.3	-6.0
Linens and domestics	346.8	381.2	411.8	439.1	6.6
Smallwares and notions	101.2	105.3	121.7	113.2	-7.0
China and glassware	157.1	162.5	178.8	175.4	-1.9
Floor coverings	144.6	162.0	163.4	158.1	-3.3
Draperies, curtains and furniture covers	178.9	177.9	186.7	190.0	1.8
Lamps, pictures, mirrors and all other					
home furnishings	105.4	100.4	108.8	124.4	14.3
Furniture	532.5	581.1	569.2	612.8	7.7
Major appliances	538.5	575.8	524.5	563.3	7.4
Television, radio and music	520.2	515.0	537.9	549.0	2.1
Housewares and small electrical appliances	436.7	444.4	488.9	519.0	6.2
Hardware, paints and wallpaper	320.5	395.5	353.9	372.4	5.2
Plumbing, heating and building materials	125.9	115.4	147.5	155.9	5.7
Jewellery	265.5	301.2	338.3	326.1	-3.6
Toys and games	333.4	350.6	394.7	410.8	4.1
Sporting goods and luggage	312.0	323.2	322.9	356.4	10.4
Stationery, books and magazines	374.2	376.7	395.5	403.9	2.1
Gasoline, oil, auto accessories, repairs					
and supplies	205.9	185.6	160.8	155.6	-3.2
Receipts from meals and lunches	265.2	267.1	218.6	258.1	18.1
Receipts from repairs and services	129.1	144.9	199.7	237.2	18.8
All other departments	397.9	411.0	587.4	494.0	-15.9
Total, all departments	11,384.9	12,038.6	12,728.5	12,906.0	1.4

17.4 Retail sales of new motor vehicles, 1978-87

Year	Passenger cars		Trucks and buses		Total	
	No.	\$'000	No.	\$'000	No.	\$'000
1978	988,890	6,383,020	377,654	3,266,505	1,366,544	9,649,525
1979	1,003,008	7,344,174	393,394	4,137,808	1,396,402	11,481,982
1980	932,060	7,517,901	331,747	3,860,703	1,263,807	11,378,604
1981	904,195	8,272,529	286,687	3,645,866	1,190,882	11,918,395
1982	713,481	7,037,564	207,421	2,786,407	920,902	9,823,971
1983	843,318	9,041,376	237,770	3,154,950	1,081,088	12,196,326
1984	971,210	11,138,931	312,292	4,540,829	1,283,502	15,679,760
1985	1,137,216	13,707,637	393,194	6,182,482	1,530,410	19,890,119
1986	1,095,313	14,669,726	420,607	7,171,805	1,515,920	21,841,531
1987	1,065,093	15,748,410	468,544	8,723,352	1,533,637	24,471,762

17.5 Retail sales of new motor vehicles by type and source, 1978-87

Year	Passenger cars		Trucks and buses		Total	
	Canadian/US	Overseas	Canadian/US	Overseas	Canadian/US	Overseas
Number						
1978	815,994	172,896	364,241	13,413	1,180,235	186,309
1979	863,554	139,454	381,562	11,832	1,245,116	151,286
1980	740,767	191,293	310,273	21,474	1,051,040	212,767
1981	646,942	257,253	250,775	35,912	897,717	293,165
1982	489,435	224,046	166,986	40,435	656,421	264,481
1983	625,088	218,230	192,609	45,161	817,697	263,391
1984	724,932	246,278	273,604	38,688	998,536	284,966
1985	794,965	342,251	344,871	48,323	1,139,836	390,574
1986	761,169	334,144	368,423	52,184	1,129,592	386,328
1987	700,930	364,163	417,189	51,355	1,118,119	415,518
Thousand dollars						
1978	5,381,914	1,001,106	3,188,109	78,396	8,570,023	1,079,502
1979	6,355,127	989,047	4,053,773	84,035	10,408,900	1,073,082
1980	6,069,407	1,448,494	3,698,247	162,456	9,767,654	1,610,950
1981	6,033,437	2,239,092	3,334,406	311,460	9,367,843	2,550,552
1982	4,856,340	2,181,224	2,423,014	363,393	7,279,354	2,544,617
1983	6,700,490	2,340,886	2,728,842	426,108	9,429,332	2,766,994
1984	8,176,591	2,962,340	4,136,482	404,347	12,313,073	3,366,687
1985	9,545,156	4,162,481	5,641,518	540,964	15,186,674	4,703,445
1986	9,856,682	4,813,044	6,441,811	729,994	16,298,493	5,543,038
1987	10,031,339	5,717,071	7,930,141	793,211	17,961,480	6,510,282

17.6 Retail sales by campus bookstores, academic years, 1983-84 to 1986-87

Province and items sold	1983-84 \$'000	1984-85 \$'000	1985-86 \$'000	1986-87 \$'000	Percentage change 1985-86 to 1986-87
Province					
Atlantic region	14,427	16,345	18,063	20,178	11.7
Nova Scotia	6,491	7,456	8,021	8,443	5.3
New Brunswick	4,572	4,976	5,328	6,229	16.9
Quebec	38,960	41,678 ^f	48,974	58,824	20.1
Ontario	90,161	99,649 ^f	108,876	120,383	10.6
Manitoba	10,013	10,996	13,283	14,825	11.6
Saskatchewan	8,897	9,841	10,087	11,208	11.1
Alberta	24,982	29,302	32,721	38,260	16.9
British Columbia	24,321	27,977	31,631	34,757	9.9
Total	211,760	235,788	263,636	298,438	13.2
Items sold					
Textbooks	141,667	153,734	171,891	186,524	8.5
Other books	18,000	19,806	20,300	25,367	25.0
Stationery and supplies	29,223	34,425	37,963	34,320	-9.6
Miscellaneous	22,870	27,823	33,482	52,227	56.0

17.7 Sales through vending machines, distribution and percentage change, by type of machine, 1983-86

Type of machine	1983		1984 ^f		Percentage change 1983-84
	\$'000	%	\$'000	%	
Cigarettes	116,919	34.3	118,226	31.5	1.1
Beverages					
Coffee	61,674	18.1	79,578	21.2	29.0
Soft drinks					
Canned or bottled	53,157	15.6	57,132	15.2	7.5
Disposable cups	16,424	4.8	16,916	4.5	3.0
Packaged milk	8,951	2.6	9,823	2.6	9.7
Other beverages	6,828	2.0	6,897	1.8	1.0

17.7 Sales through vending machines, distribution and percentage change, by type of machine, 1983-86 (concluded)

Type of machine	1983		1984 ^f		Percentage change 1983-84
	\$'000	%	\$'000	%	
Confectionery and food					
Bulk confectionery	3,433	1.0	3,506	0.9	2.1
Packaged confectionery combinations	32,286	9.5	40,945	10.9	26.8
Pastries	8,288	2.4	6,711	1.8	-19.0
Snack foods	7,453	2.2	6,392	1.7	-14.2
Hot canned foods and soups	2,603	0.8	2,372	0.6	-8.9
Ice cream	1,070	0.3	1,029	0.3	-3.9
Fresh foods	21,002	6.2	24,357	6.5	16.0
All other commodities	844	0.2	1,869	0.5	121.4
Total	340,933	100.0	375,752	100.0	11.2
	1985		1986		Percentage change 1985-86
	\$'000	%	\$'000	%	
Cigarettes	108,885	29.6	101,622	26.2	-6.7
Beverages					
Coffee	81,715	22.2	97,361	25.1	19.1
Soft drinks					
Canned or bottled	59,865	16.3	65,029	16.8	8.6
Disposable cups	15,983	4.4	16,257	4.2	1.7
Packaged milk	8,888	2.4	5,609	1.4	-36.9
Other beverages	6,064	1.6	7,887	2.1	30.1
Confectionery and food					
Bulk confectionery	4,040	1.1	5,760	1.5	42.6
Packaged confectionery combinations	43,188	11.8	53,558	13.8	24.0
Pastries	4,431	1.2	4,374	1.1	-1.3
Snack foods	4,491	1.2	3,504	0.9	-22.0
Hot canned foods and soups	1,963	0.5	2,527	0.7	28.7
Ice cream	1,505	0.4	1,013	0.3	-32.7
Fresh foods	25,602	7.0	22,466	5.8	-12.2
All other commodities	698	0.2	273	--	-60.9
Total	367,317	100.0	387,238	100.0	5.4

17.8 Direct sales by commodity, 1983-86

Commodity	1983		1984	
	\$'000	%	\$'000	%
Meat, fish and poultry	24,552	1.0	23,598	1.0
Food plans	15,546	0.7	12,484	0.5
Dairy products	265,422	11.5	312,798	12.8
Bakery products	103,719	4.5	103,626	4.3
Other foods and beverages	101,205	4.4	120,367	4.9
Clothing and shoes	45,089	1.9	48,357	2.0
Fur goods	5,241	0.2	5,768	0.2
Books and encyclopedias	209,786	9.0	227,855	9.3
Newspapers	291,874	12.6	318,494	13.1
Magazines	116,726	5.0	147,686	6.1
Home improvement products and building supplies	61,758	2.7	56,862	2.3
Household cleaners, soaps, brushes and brooms	76,390	3.3	76,837	3.1
Dinnerware, kitchenware and utensils	118,330	5.1	104,060	4.3
Furniture, home furnishings and repairs	20,938	0.9	19,151	0.8
Household electrical appliances	182,139	7.9	182,484	7.5
Phonograph records and audio tapes	34,248	1.5	44,060	1.8
Video tapes, video games and equipment	1,470	0.1	4,852	0.2
Cosmetics and personal care products	203,317	8.8	187,895	7.7
Jewellery	52,967	2.3	48,114	2.0
Boats and pleasure craft	20,132	0.9	17,196	0.7
Canvas products: awnings, sails, tents, etc.	14,146	0.6	15,276	0.6
Greenhouse and nursery products	92,564	4.0	99,571	4.1
Orthopedic supplies and artificial limbs	7,009	0.3	7,980	0.3
Monuments and tombstones	12,265	0.5	12,594	0.5
Toys, games, hobbies, crafts and cards	75,716	3.3	82,443	3.4
All other merchandise	161,010	7.0	157,288	6.5
Total, all commodities	2,313,560	100.0	2,437,696	100.0

17.8 Direct sales by commodity, 1983-86 (concluded)

Commodity	1985		1986		Percentage change 1985-86
	\$'000	%	\$'000	%	
Meat, fish and poultry	18,975	0.8	16,143	0.6	-14.9
Food plans	11,651	0.5	13,966	0.5	19.9
Dairy products	320,029	12.8	279,870	11.0	-12.5
Bakery products	102,986	4.1	85,044	3.3	-17.4
Other foods and beverages	90,234	3.6	92,723	3.6	2.8
Clothing and shoes	60,749	2.4	62,159	2.4	2.3
Fur goods	6,914	0.3	6,021	0.2	-12.9
Books and encyclopedias	244,871	9.8	248,803	9.8	1.6
Newspapers	348,623	13.9	370,984	14.6	6.4
Magazines	167,024	6.7	162,560	6.4	-2.7
Home improvement products and building supplies	58,427	2.3	62,368	2.5	6.7
Household cleaners, soaps, brushes and brooms	62,896	2.5	50,963	2.0	-19.0
Dinnerware, kitchenware and utensils	107,251	4.3	114,002	4.5	6.3
Furniture, home furnishings and repairs	24,326	1.0	25,325	1.0	4.1
Household electrical appliances	179,809	7.2	183,669	7.2	2.1
Phonograph records and audio tapes	53,270	2.1	57,715	2.3	8.3
Video tapes, video games and equipment	2,851	0.1	1	..	..
Cosmetics and personal care products	190,292	7.6	192,249	7.6	1.0
Jewellery	53,149	2.1	66,703	2.6	25.5
Boats and pleasure craft	12,272	0.5	8,255	0.3	-32.7
Canvas products: awnings, sails, tents, etc.	14,463	0.6	14,858	0.6	2.7
Greenhouse and nursery products	100,401	4.0	108,620	4.3	8.2
Orthopedic supplies and artificial limbs	8,553	0.3	9,324	0.4	9.0
Monuments and tombstones	13,576	0.5	14,878	0.6	9.6
Toys, games, hobbies, crafts and cards	90,632	3.6	107,289	4.2	18.4
All other merchandise	161,766	6.5	188,086	7.4	16.3
Total, all commodities	2,505,990	100.0	2,542,575	100.0	1.5

¹ Confidential.**17.9 Restaurant, caterer and tavern receipts, by province, 1983-87 (million dollars)**

Province or territory	1983	1984	1985	1986	1987
Newfoundland	140.7	129.9	122.3	135.4	145.0
Prince Edward Island	41.6	45.0	46.0	48.7	55.5
Nova Scotia	272.0	285.0	304.5	329.4	359.4
New Brunswick	187.2	206.9	219.0	239.5	265.8
Quebec	2,390.1	2,655.7	2,903.7	3,120.3	3,419.0
Ontario	3,969.4	4,210.8	4,647.8	5,212.4	5,825.2
Manitoba	333.2	374.7	415.9	429.3	448.4
Saskatchewan	335.2	343.1	356.4	391.2	448.8
Alberta	1,049.6	1,089.0	1,185.6	1,254.8	1,307.5
British Columbia	1,351.1	1,422.8	1,529.6	1,751.2	1,851.3
Yukon and Northwest Territories	19.8	29.1	29.4	29.4	30.6
Canada	10,089.9	10,791.9	11,760.1	12,941.6	14,156.5

17.10 Number of businesses and revenues for leisure and personal service industries, 1984-86

Title and SIC ¹ number	1984		1985		1986	
	No.	\$'000,000	No.	\$'000,000	No.	\$'000,000
Motion picture, audio and video production and distribution (SIC 961)	780	732.0	852	954.3	933	1,177.1
Motion picture exhibition (SIC 962)	1,108	416.5	1,002	414.0	898	404.9
Theatrical and other staged entertainment services (SIC 963)	3,646	329.8	3,686	378.9	4,223	448.8
Commercial spectator sports (SIC 964)	1,246	414.1	1,193	462.3	1,412	502.3
Sports and recreation clubs and services (SIC 965)	3,036	722.4	3,458	871.9	3,630	996.9
Other amusement and recreational services (SIC 969)	5,719	735.8	5,326	761.0	5,606	845.4
Barber and beauty shops (SIC 971)	18,956	1,094.1	20,035	1,212.4	21,111	1,321.5
Laundries and cleaners (SIC 972)	6,225	992.5	6,409	1,129.8	6,314	1,222.8
Funeral services (SIC 973)	1,400	483.6	1,359	543.9	1,392	581.9
Other personal and household services (SIC 979)	5,225	355.1	5,947	422.1	6,765	483.2

¹ Standard Industrial Classification, 1980.

17.11 Number of businesses and revenues for business and other service industries, 1984-86

Title and SIC ¹ number	1984		1985		1986	
	No.	\$'000,000	No.	\$'000,000	No.	\$'000,000
Employment agencies and personnel suppliers (SIC 771)	1,377	690.4	1,562	910.8	1,725	1,090.3
Computer and related services (SIC 772)	4,358	2,124.9	5,926	2,610.6	5,578	2,852.5
Advertising services (SIC 774)	4,541	1,368.7	5,021	1,564.1	5,428	1,770.3
Architectural, engineering and other scientific and technical services (SIC 775)						
Other business services (SIC 779)	24,465	3,364.3	25,647	3,838.7	13,223	5,688.9
Machinery and equipment rental and leasing services (SIC 991)	5,669	1,311.3	6,973	1,548.3	7,065	1,740.5
Automobile and truck rental and leasing services (SIC 992)	2,439	1,537.0	2,746	1,792.0	2,593	1,985.6
Photographers (SIC 993)	2,801	328.5	2,862	352.2	2,912	382.7
Other repair services (SIC 994)	7,396	700.4	8,029	822.1	7,422	890.6
Services to buildings and dwellings (SIC 995)	13,434	1,277.7	14,072	1,423.3	15,429	1,630.1
Travel services (SIC 996)	3,483	2,690.2	3,542	3,147.9	3,845	3,110.3

¹ Standard Industrial Classification, 1980.**17.12 Wholesale merchant establishments, volume of trade¹ by province, 1983-86**
(million dollars)

Province	1983	1984	1985	1986 ^P
Newfoundland	1,379.0	1,544.8	1,673.9	1,531.5
Prince Edward Island	220.5	264.4	294.6	326.9
Nova Scotia	2,056.2	2,352.7	2,304.4	2,362.2
New Brunswick	3,292.7	3,233.6	3,593.9	3,587.8
Quebec	33,729.2	39,143.7	41,407.8	42,636.3
Ontario	60,726.5	72,841.2	81,783.1	87,429.6
Manitoba	17,849.8	19,293.6	17,860.3	16,705.7
Saskatchewan	7,071.5	7,210.1	7,526.9	6,967.3
Alberta	15,435.9	16,766.3	18,720.7	17,201.7
British Columbia	17,032.6 ^F	18,816.2	19,970.3	20,761.4
Yukon and Northwest Territories	136.2	174.1	169.4	152.6

¹ Sales and trading receipts, and the value of goods bought or sold on commission.**17.13 Wholesale merchant establishments, volume of trade¹ by trade group, 1983-86**
(million dollars)

SIC trade group	1983	1984	1985	1986 ^P
Farm products	18,538.3	19,730.8	17,347.1	15,828.9
Coal, coke and petroleum products	26,142.6	27,917.8	29,807.8	23,124.2
Paper and paper products	3,081.3 ₂	3,835.9 ₂	4,161.4 ₂	4,088.6 ₂
General merchandise				
Food	25,786.9	28,768.6	31,291.6	33,377.3
Tobacco products, drugs and toilet preparations	4,424.6	5,052.1	5,845.9	6,595.9
Apparel and dry goods	2,725.1	3,305.9	3,963.1	4,650.9
Household furniture and house furnishings	1,705.1	1,980.4	1,967.8	2,314.1
Motor vehicles and accessories	10,738.6	13,543.2	16,134.1	17,851.7
Electrical machinery, equipment and supplies	9,592.1	12,412.5	13,489.7	15,611.0
Farm machinery	4,771.9	4,990.3	5,348.6	5,454.9
Machinery and equipment	13,568.7	16,464.7	18,771.9	19,469.0
Hardware, plumbing and heating equipment	4,067.7 ₂	5,062.3 ₂	5,642.6 ₂	6,343.3 ₂
Metals and metal products				
Lumber and building materials	11,325.8 ₂	12,474.6 ₂	13,464.6 ₂	15,689.7 ₂
Scrap and waste materials				
Wholesalers, n.e.s.	14,713.3	16,742.9	17,467.8	19,390.3
Total, all trades	158,930.4	181,640.8	195,305.2	199,662.8

¹ Sales and trading receipts, and the value of goods bought or sold on commission.² Confidential.

17.14 Agents and brokers, volume of trade¹ by trade group and province, 1983-86 (million dollars)

Province and SIC trade group	1983	1984	1985	1986 ^P
Newfoundland	243.9	349.0	287.0	294.2
Prince Edward Island	36.7	42.0	61.0	56.7
Nova Scotia	424.0	485.9	656.3	659.7
New Brunswick	270.5	288.6	266.0	271.2
Quebec	5,278.4	5,896.0	6,618.8	7,448.9
Ontario	14,490.5	15,480.2	16,136.7	15,279.1
Manitoba	2,065.8	2,363.3	2,376.4	1,817.9
Saskatchewan	1,180.4	1,180.5	1,302.7	1,287.1
Alberta	3,697.6	3,877.3	4,781.4	4,645.9
British Columbia	3,438.9 ¹	3,700.4	3,830.4	3,672.1
Yukon and Northwest Territories	55.4	59.4	56.2	59.4
Farm products	7,022.4	7,985.7	8,396.0	8,411.8
Coal, coke and petroleum products	4,553.8	5,026.3	5,306.5	3,917.6
Paper and paper products	347.0	366.9	446.9	664.4
General merchandise				
Food	7,062.1	7,257.2	6,981.1	7,232.5
Tobacco products, drugs and toilet preparations	111.8	150.3	218.2	215.9
Apparel and dry goods	1,649.5	1,669.3	1,966.7	2,307.0
Household furniture and house furnishings	525.6	612.3	682.2	934.1
Motor vehicles and accessories	553.5	576.0	1,371.9	1,182.8
Electrical machinery, equipment and supplies	1,244.6	1,615.0	2,239.1	2,184.9
Farm machinery	98.3	99.5	67.7	88.1
Machinery and equipment	526.7	518.6	669.6	540.2
Hardware, plumbing and heating equipment	945.4	1,575.2	1,576.3	2,073.8
Metals and metal products				
Lumber and building materials	989.4	910.1	1,092.5	1,332.1
Scrap and waste materials		18.1		
Wholesalers, n.e.s.	1,767.4	2,053.6	2,037.3	1,729.7
Total, all trades	31,182.2	33,722.6	36,372.8	35,491.2

¹ Sales and trading receipts including value of goods bought or sold on commission.

² Confidential.

17.15 Agents and brokers, gross commissions earned by trade group and province, 1983-86 (million dollars)

Province and SIC trade group	1983	1984	1985	1986 ^P
Newfoundland	12.2	14.9	14.2	16.1
Prince Edward Island	1.7	4.3		
Nova Scotia	19.0	23.8	25.7	25.8
New Brunswick	11.9	13.8		
Quebec	184.3	202.7	261.2	211.3
Ontario	251.4	326.0	383.6	396.7
Manitoba	91.5	93.1	99.3	73.2
Saskatchewan	37.8	42.2	44.1	43.4
Alberta	94.5	109.7	107.5	103.9
British Columbia	142.4 ¹	137.4	137.8	150.3
Yukon and Northwest Territories	1.9	2.3		
Farm products	147.6	165.1	244.3	170.6
Coal, coke and petroleum products	204.6	232.6	232.4	212.9
Paper and paper products	10.1	11.0	15.5	23.2
General merchandise				
Food	110.2	118.2	126.9	130.8
Tobacco products, drugs and toilet preparations	7.8	14.7	15.4	13.4
Apparel and dry goods	80.7	93.3	98.5	112.6
Household furniture and house furnishings	23.8	28.8	29.4	39.8
Motor vehicles and accessories	23.6	24.0	29.7	31.5
Electrical machinery, equipment and supplies	56.7	59.1	69.8	63.9
Farm machinery	4.8	5.1	4.4	4.7
Machinery and equipment	36.3	41.7	49.1	38.6
Hardware, plumbing and heating equipment	25.1	36.2	36.6	54.2
Metals and metal products				
Lumber and building materials	28.2	27.4	33.5	38.1
Scrap and waste materials		2.0		
Wholesalers, n.e.s.	72.6	92.2	86.3	87.2
Total, all trades	848.7	970.3	1,090.8	1,039.5

¹ Confidential.

17.16 Summary statistics of co-operative associations, 1980-86, and by region, 1983-86

Year and region	Associations	Shareholders or members	Assets \$'000,000	Product farm marketings \$'000,000	Sales of merchandise and supplies \$'000,000	Service revenue \$'000,000	Total business ¹ \$'000,000
1980	2,677	2,748,100	4,150.8	6,606.0	3,742.4	567.7	11,036.0
1981	2,871	2,794,000	5,366.2	7,574.9	4,481.5	625.0	12,832.3
1982	3,053	2,899,400	5,453.5	8,200.4	4,792.2	770.2	13,924.0
1983	3,024	2,843,300	5,879.8	8,059.9	4,830.5	789.5	13,862.6
1984	3,316	2,869,400	6,112.9	8,769.4	5,069.7	874.3	14,937.4
1985	3,516	2,994,000	6,222.7	8,123.2	5,237.3	865.1	14,478.4
1986	3,455	3,024,000	6,690.6	7,440.0	5,105.7	932.3	13,734.3
Atlantic ²							
1983	341	145,600	265.9	351.1	408.7	14.1	788.8
1984	345	141,600	294.7	359.8	449.9	15.8	842.0
1985	359	151,200	318.1	378.2	484.1	19.0	901.6
1986	370	158,900	358.1	407.7	492.7	23.0	945.2
Quebec							
1983	869	500,300	922.1	1,288.8	971.9	73.1	2,383.8
1984	838	494,700	968.1	1,466.7	992.2	75.4	2,588.3
1985	895	497,200	1,034.3	1,498.0	1,026.2	78.1	2,658.8
1986	880	501,000	1,112.9	1,511.0	950.2	101.7	2,607.2
Ontario							
1983	306	150,400	504.8	373.0	521.3	52.4	972.5
1984	311	154,400	576.8	393.1	581.0	58.0	1,065.5
1985	382	159,800	688.2	334.2	587.6	75.8	1,041.5
1986	373	153,100	740.7	349.1	572.0	85.2	1,054.3
West ³							
1983	1,508	2,047,000	4,187.0	6,047.0	2,928.6	650.0	9,717.5
1984	1,822	2,078,700	4,273.2	6,549.8	3,046.5	725.1	10,441.7
1985	1,880	2,185,800	4,182.0	5,912.9	3,139.4	692.1	9,876.5
1986	1,832	2,211,000	4,478.8	5,172.1	3,090.7	722.4	9,127.7

¹ Includes other income.² Includes Nfld., PEI, NS, NB.³ Includes Man., Sask., Alta., BC.**17.17 Sales of products handled by co-operatives, 1983-86 (million dollars¹)**

Product	1983	1984	1985	1986
Marketing				
Grains	4,115	4,224	3,479	2,985
Oilseeds	565	895	878	619
Fruit	98	110	115	136
Vegetables	82	113	114	110
Dairy products	2,136	2,356	2,408	2,450
Poultry	254	270	303	304
Eggs	18	18	22	21
Livestock				
Cattle and sheep	430	408	424	372
Hogs	122	133	109	106
Fish	120	109	125	168
Forest products	49	53	63	83
Honey and maple products	27	29	31	30
Other	46	52	53	56
Total, marketing	8,060	8,769	8,123	7,440
Consumer and supply				
Food products	1,575	1,619	1,729	1,738
Dry goods and home hardware	313	308	297	300
Other	101	110	122	137
Sub-total, consumer and supply	1,989	2,037	2,148	2,176
Agriculture				
Animal feed	612	678	637	574
Fertilizer and chemicals	536	641	683	626
Seeds	84	81	75	98
Farm supplies	196	210	251	271
Sub-total, agriculture	1,428	1,611	1,646	1,569
Machinery, vehicles and parts	174	168	170	184
Petroleum products	1,012	1,029	1,062	977
Building materials	218	211	197	191
Other	10	13	15	10
Total, supplies	4,831	5,070	5,237	12,547

¹ Rounded to nearest million.

17.18 Value and volume of sales of alcoholic beverages, years ended March 31, 1984-87

Province or territory	Value (\$'000,000)							
	Spirits				Wines			
	1984	1985	1986	1987	1984	1985	1986	1987
Nfld.	64.7	64.5	75.2	69.6	10.9	11.1	12.4	11.8
PEI	17.7	18.0	17.5	18.1	3.2	3.4	3.4	3.7
NS	114.6	115.7	118.6	123.4	26.7	28.7	30.6	33.8
NB	65.8	64.5	65.8	68.8	17.1	17.6	17.6	19.4
Que.	442.2	446.1	450.8	449.2	397.9	434.2	483.3	495.2
Ont.	1,051.4	1,098.9	1,122.2	1,189.8	416.5	444.9	473.8	516.7
Man.	145.1	149.8	155.9	152.9	37.2	38.5	40.8	43.8
Sask.	142.6	142.1	144.5	143.1	24.4	25.5	26.7	28.4
Alta.	402.8	393.8	407.9	392.9	121.7	120.1	132.5	134.9
BC	426.3	425.5	428.6	442.9	204.2	214.5	228.4	249.9
YT	6.0	6.1	6.0	6.6	2.2	2.2	2.3	2.4
NWT	10.7	11.3	11.4	10.7	2.2	2.3	2.4	2.4
Canada	2,889.9	2,936.3	3,004.4	3,068.0	1,264.2	1,343.0	1,454.2	1,542.4
	Beer				Total			
Nfld.	122.3	136.1	111.1	144.4	197.9	211.7	198.7	225.8
PEI	17.6	19.0	20.1	20.5	38.5	40.4	41.0	42.3
NS	115.4	116.7 ¹	124.4	128.0	256.7	261.1	273.6	285.2
NB	93.2 ²	101.8 ¹	104.3	106.6	176.1	183.9	187.7	194.8
Que.	773.5	806.5	941.4	1,076.3	1,613.6	1,686.8	1,875.6	2,020.7
Ont.	1,162.5	1,217.7	1,370.9	1,512.2	2,630.4	2,761.5	2,966.9	3,218.7
Man.	121.6	138.5	140.7	153.2	303.9	326.8	337.4	349.9
Sask.	110.5	122.7	126.4	131.2	277.5	290.3	297.6	302.7
Alta.	337.8	343.4	353.5	348.8	862.3	857.3	893.9	876.6
BC	379.2	404.3	450.5	495.4	1,009.7	1,044.3	1,107.4	1,188.2
YT	6.0	6.5	6.6	7.4	14.2	14.8	14.9	16.4
NWT	9.1	9.9	11.1	11.0	22.0	23.5	24.9	24.1
Canada	3,248.7	3,423.1	3,761.0	4,135.0	7,402.8	7,702.4	8,219.6	8,745.4
	Volume ('000 litres)							
	Spirits				Wines			
Nfld.	3.9	3.7	4.1	3.7	1.6	1.6	1.8	1.7
PEI	0.9	0.9	0.8	0.8	0.5	0.5	0.5	0.6
NS	6.6	6.2	6.1	6.2	5.0	5.3	5.4	5.6
NB	3.7	3.5	3.4	3.4	3.1	3.2	3.2	3.2
Que.	26.8	25.6	23.9	21.7	64.6	68.6	74.3	72.5
Ont.	65.8	64.8	62.6	63.9	80.8	84.9	85.7	85.4
Man.	8.3	8.1	8.4	7.5	6.9	7.1	7.6	7.5
Sask.	8.4	7.8	7.8	7.5	5.1	5.3	5.5	5.1
Alta.	24.6	22.7	23.1	21.4	22.6	22.5	24.7	22.5
BC	25.7	24.5	23.7	23.7	44.2	46.3	47.3	48.1
YT	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.3
NWT	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.3
Canada	175.5	168.7	164.7	160.6	235.1	245.9	256.6	252.8
	Beer				Total			
Nfld.	49.1	51.0	39.2	51.4	54.6	56.3	45.1	56.8
PEI	8.8	9.1	8.9	8.7	10.2	10.5	10.3	10.1
NS	62.0	64.7	64.3	62.2	73.6	76.2	75.8	74.0
NB	51.5	52.3	51.1	48.7	58.3	59.0	57.7	55.3
Que.	565.8	559.0	548.8	538.1	657.2	653.2	647.0	632.3
Ont.	777.1	765.8	803.6	805.6	923.7	915.5	951.9	954.9
Man.	84.2	88.3	81.6	80.6	99.4	103.5	97.6	96.6
Sask.	66.4	68.3	65.2	63.3	79.9	81.4	78.5	75.9
Alta.	178.9	176.3	173.5	175.0	226.1	221.5	221.3	218.9
BC	227.1	231.3	232.2	233.5	297.0	302.1	294.2	305.3
YT	2.9	3.2	3.2	3.3	3.6	3.8	3.8	3.9
NWT	4.0	4.1	4.2	4.2	4.8	5.0	5.0	5.0
Canada	2 077.8	2 073.4	2 066.8	2 075.6	2 488.4	2 488.0	2 488.1	2 489.0

17.19 Revenue of all governments¹ specifically derived from the control, taxation and sale of alcoholic beverages, years ended March 31, 1984-87 (million dollars)

Government	1984	1985	1986	1987
Government of Canada	1,061.4	1,159.1	1,174.0	1,183.0
Provincial and territorial governments				
Newfoundland	70.0	74.8	82.8	74.4
Prince Edward Island	16.0	16.6	16.7	17.4
Nova Scotia	99.2	105.0	109.3	113.6
New Brunswick	68.8	71.8	75.0	78.6
Quebec	386.8	405.3	426.9	435.2
Ontario	778.4	857.3	887.6	958.2
Manitoba	129.2	137.0	140.4	142.9
Saskatchewan	113.4	117.1	121.5	123.4
Alberta	298.9	305.0	323.3	324.0
British Columbia	364.6	369.2	413.6	445.3
Total, provincial governments	2,325.3	2,459.1	2,597.1	2,713.0
Yukon	5.8	5.9	5.6	6.7
Northwest Territories	9.1	9.2	10.1	10.2
Total, provincial and territorial governments	2,340.2	2,474.2	2,612.8	2,729.9
Total, all governments	3,401.6	3,633.3	3,786.8	3,912.9

¹ Revenue of the Government of Canada comprises excise duties, excise taxes, import duties and certain fees and licences. Revenue of provinces and territories includes revenue collected directly by the provincial and territorial governments as well as revenue of liquor authorities but excludes revenue resulting from general retail sales taxation.

Sources

17.1 - 17.8, 17.12 - 17.15 Industry Division, Statistics Canada.

17.9 - 17.11 Services Division, Statistics Canada.

17.16, 17.17 Co-operatives Secretariat, Agriculture Canada.

17.18, 17.19 Public Institutions Division, Statistics Canada.

CHAPTER 18

BANKING, FINANCE AND INSURANCE

CHAPTER 18

BANKING, FINANCE AND INSURANCE

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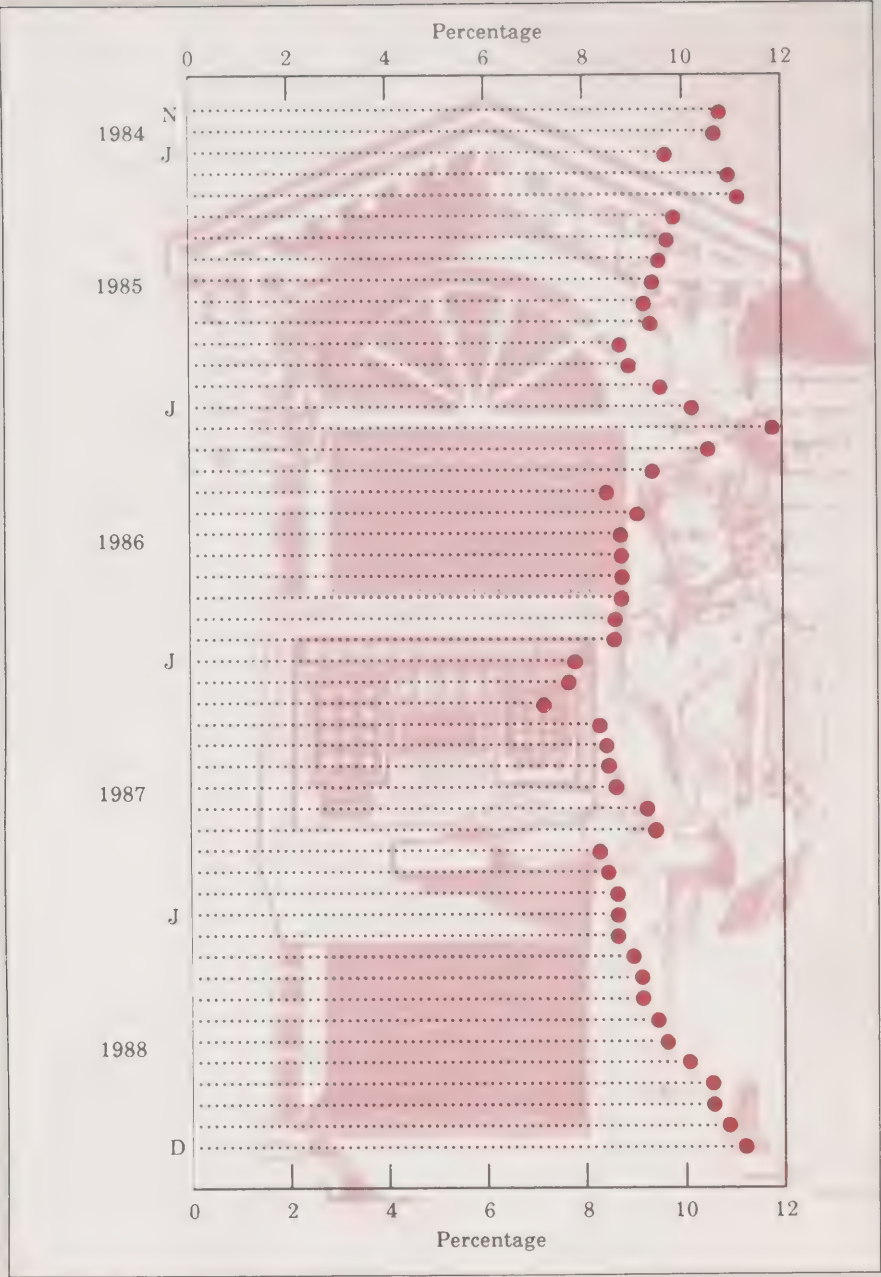
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**BANK RATE OF
THE BANK OF CANADA**

The Bank of Canada may make loans or advances to chartered banks, the federal and provincial governments and other institutions that fulfil specific criteria. The Bank must publicize the minimum rate at which it is prepared to make loans and advances; this rate is known as the Bank Rate.

CHAPTER 18

BANKING, FINANCE AND INSURANCE

18.1 Banking

18.1.1 Bank of Canada

Canada's central bank, the Bank of Canada, began operations on March 11, 1935, under the terms of the Bank of Canada Act, 1934, which charged it with the responsibility "to regulate credit and currency in the best interests of the economic life of the nation, to control and protect the external value of the national monetary unit and to mitigate by its influence fluctuations in the general level of production, trade, prices and employment, so far as possible within the scope of monetary action and generally to promote the economic and financial welfare of Canada". The Act does not specify the methods that the Bank should use but it confers certain powers that, with provisions in other legislation, enable the Bank to exercise a broad controlling influence over the growth of money and credit in Canada, and thereby to affect levels of spending and economic activity. Revisions to the Act were made in 1936, 1938, 1954, 1967 and 1980.

The provisions of the Bank of Canada Act enable the Central Bank to determine the total amount of cash reserves available to the chartered banks as a group and in that way to influence the level of short-term interest rates. The Bank Act, which regulates the chartered banks, requires that each chartered bank maintain a stipulated minimum average amount of cash reserves, calculated as a percentage of deposit liabilities. Under the 1980 Bank Act revision this cash reserve requirement is 10% of reservable Canadian dollar demand deposits, 2% of reservable Canadian dollar notice deposits plus an additional 1% of the amount by which a bank's reservable Canadian dollar notice deposits exceed \$500 million, and 3% of reservable foreign currency deposits. Cash reserves may be held as deposits at the Bank of Canada (or, with the Bank's approval, at a chartered bank), as holdings of Bank of Canada notes, or coins with a face value of \$2 or less that are current under the Currency Act. The ability of the chartered banks as a group to expand their

total assets and liabilities is therefore limited by the total amount of cash reserves available.

A decrease in cash reserves tends to cause short-term interest rates to rise, making it more costly for the public to hold non-interest-bearing deposits and currency. An increase in cash reserves would put downward pressure on interest rates and indirectly induce the public to hold more money. Control of excess reserves thus provides some control over the growth of the money supply.

There are two primary methods by which the Bank of Canada can alter the level of cash reserves of the chartered banks. The technique employed most often is the transfer of government deposits between the central bank and chartered banks. The second method is the purchase or sale of government securities.

The transfer of government deposits from the Bank of Canada to chartered banks or the payment by the central bank for the securities purchased adds to the cash reserves of the chartered banks as a group and puts them in a position to expand their assets and deposit liabilities. The more direct method of increasing bank reserves is the transfer of government deposits to chartered banks. Such transfers, which the Bank is authorized to make as the fiscal agent of the federal government, do not involve any immediate effect on security prices and yields in financial markets.

In recent years, the aim of monetary policy has been to reduce the rate of inflation while achieving satisfactory levels of economic activity. From 1975 to November 1982, the Bank sought to attain these objectives through a gradual but significant decline in the trend rate of growth of the money supply, defined as the public's holdings of currency and chartered bank demand deposits (M1), a definition which included only those forms of money used as a means of payment.

By 1982, as a result of innovations in the financial services industry, the relationship between M1 and interest rates and total spending became so distorted that M1 was no longer sufficiently reliable for use as a monetary target. In November 1982, the Bank announced it was abandoning

specific monetary targets. At the same time, it made clear that this decision did not involve a fundamental change in the Bank's approach to monetary policy. In deciding monetary policy, the Bank of Canada has always attached great importance to a wide range of economic statistics and financial market data that goes well beyond the performance of particular aggregates. In current circumstances, it relies on its analysis of a broad range of financial and economic variables, including the trend of total spending in the economy, and exchange rate developments, as well as the various monetary and credit aggregates, to come to judgments regarding monetary policy. The objective of monetary policy continues to be, however, a rate of monetary expansion sufficient to accommodate increasing utilization of Canada's economic resources in a context of improving price stability.

The Bank of Canada leaves the allocation of bank and other forms of credit to the private sector. Each chartered bank is free to attempt to gain as large a share as possible of the total cash reserves available by competing for deposits and to decide what proportion of its funds to invest in particular kinds of securities or loans to particular types of borrowers.

The Bank of Canada may buy or sell securities issued or guaranteed by Canada or any province, certain short-term securities issued by the United Kingdom, treasury bills or other obligations of the United States and certain types of short-term commercial paper. It may buy and sell gold, silver, nickel and bronze coin, or any other coin, and gold and silver bullion as well as foreign currencies and may accept non-interest-bearing deposits from the federal government or corporations and agencies of the federal government, the government of any province, any chartered bank, any bank regulated by the Quebec Savings Bank Act or any other member of the Canadian Payments Association. The Bank of Canada may open accounts in other central banks or in the Bank for International Settlements, as well as maintain accounts in commercial banks, to facilitate buying and selling foreign currencies; accept deposits from other central banks, the Bank for International Settlements, the International Monetary Fund, the International Bank for Reconstruction and Development, and any other official international financial organization; and pay interest on such deposits. It may also buy and sell Special Drawing Rights issued by the International Monetary Fund. The Bank of Canada does not accept deposits from individuals nor does it compete with the chartered banks in the

commercial banking field. It acts as the fiscal agent for the federal government in payment of interest and principal, and generally in respect of the management of the public debt of Canada. The sole right to issue paper money for circulation is vested in the Bank.

The central bank also may require the chartered banks to maintain, in addition to the legal minimum cash reserve requirement, a secondary reserve which the Bank of Canada may vary within certain limits. The Bank has the power to alter the minimum secondary reserve ratio of the chartered banks between 0% and 12% of Canadian dollar deposit liabilities provided that it gives notice of at least one month before any increase is made and provided that it does not increase the ratio by more than one percentage point above 6% in any one month. Secondary reserves are cash reserves in excess of the minimum requirement, day-to-day loans to money market dealers, and treasury bills.

The Bank of Canada may make loans or advances for periods not exceeding six months to chartered banks, to banks to which the Quebec Savings Bank Act applies, or to other members of the Canadian Payments Association that maintain deposits with the Bank, on the pledge of certain classes of securities. Loans or advances may be made under certain conditions and for limited periods to the federal government or to any provincial government. The Bank must make public, at all times, the minimum rate at which it is prepared to make loans or advances; this rate is known as the Bank Rate. Typically, the Bank Rate was administered directly by the Bank of Canada and changed from time to time. However, during the period from November 1, 1956 to June 24, 1962 the Bank Rate was set at $\frac{1}{4}$ of 1% above the weekly average tender rate of 91-day treasury bills issued by the Government of Canada. On March 10, 1980 the Bank of Canada again announced that, beginning on March 13, 1980 and until further notice, the Bank Rate would be set at $\frac{1}{4}$ of 1% above the latest rate established at the weekly tender for 91-day treasury bills auctioned every Thursday.

Purchase and Resale Agreements (PRA) are arrangements under which the Bank of Canada provides short-term accommodations as a lender of last resort to investment dealers who are money market "jobbers". From May 12, 1974 to March 12, 1980 the PRA rate was $\frac{1}{4}$ of 1% per annum above the average rate on 91-day treasury bills at the latest weekly tender, subject to a minimum of Bank Rate minus $\frac{3}{4}$ of 1% and a maximum of Bank Rate plus $\frac{1}{2}$ of 1%.

Effective March 13, 1980 the rate at which the Bank of Canada has entered into these agreements has been the Bank Rate.

During 1985, a variant on these arrangements was introduced whereby the Bank may occasionally, at its initiative, offer to engage in so-called "special" Purchase and Resale Agreements, at rates determined in the light of circumstances. The purpose of this additional facility, which may be offered to dealers or banks, is to provide the Bank with more flexibility in its operations designed to influence the overnight market for money. Less common have been Special Sale and Repurchase Agreements; these are transactions to counter downward pressure on overnight financing rates and were first used by the Bank in 1986.

Assets and liabilities of the Bank of Canada at December 31, 1983-87 are shown in Table 18.2. The Bank is not required to maintain gold or foreign exchange reserves against its liabilities.

Although the Bank of Canada operates with a large measure of independence, this does not mean that the government has been relieved of the ultimate responsibility for the general thrust of monetary policy. The Bank of Canada Act provides for regular consultation between the governor of the Bank of Canada and the Minister of Finance as well as for a formal procedure whereby, in the event of a disagreement between the government and the central bank, which cannot be resolved, the government may, after consultation, issue a directive to the Bank of Canada on the monetary policy to follow. Any such directive must be in writing, in specific terms, and applicable for a specified period. It must be tabled in Parliament and published immediately in the *Canada Gazette*. This provision of the Act makes it clear that the government must take ultimate responsibility for monetary policy but that the central bank is in no way relieved of its responsibility, so long as a directive is not in effect. Such a directive has never been issued.

The Bank of Canada Act provides that the Bank shall be under the management of a board of directors composed of a governor, a deputy governor and 12 directors. The governor of the Bank is its chief executive officer and is authorized to act in connection with the conduct of the Bank's business in all matters not specifically reserved to the board or to its executive committee. The directors are appointed for three-year terms by the Minister of Finance, with the approval of the Governor-in-Council. The directors, in turn, appoint the governor and deputy governor for seven-year terms, also with approval of the Governor-in-Council. The deputy minister of

finance sits on the board but does not have a vote. An executive committee composed of the governor, deputy governor, two to four directors and the deputy minister of finance (without a vote) acts for the board; it meets each week in which there is not a full board meeting.

The head office of the Bank of Canada is in Ottawa. It has agencies in Halifax, Saint John, Montreal, Ottawa, Toronto, Winnipeg, Regina, Calgary and Vancouver and is represented by other institutions in St. John's and Charlottetown. In addition, there are representatives of head office departments in Montreal, Toronto and Vancouver.

18.1.2 Currency

When the Bank of Canada began operations in 1935, it assumed liability for Dominion notes outstanding. These were gradually replaced in public circulation and partly replaced in cash reserves by the central bank's legal tender notes. Bank of Canada notes thus replaced chartered bank notes as the issue of the latter was reduced. Further restrictions introduced by the 1944 revision of the Bank Act cancelled the right of chartered banks to issue or re-issue notes after January 1, 1945, and in January 1950 the chartered banks' liability for such of their notes issued for circulation in Canada as then remained outstanding was transferred to the Bank of Canada with a concurrent adjustment to the banks' deposits at the Bank of Canada.

Bank of Canada note liabilities for the years 1983-87 are given in Table 18.3. Note circulation in public hands as at December 31, 1987 amounted to \$15.4 billion, compared to \$12.2 billion in 1984 and \$11.6 billion in 1983. Bank of Canada statistics concerning currency and chartered bank deposits are given in Table 18.4.

18.1.3 Coinage

Under the Royal Canadian Mint Act (RSC 1970, c.R-8), precious metal coins may be issued in the denominations of \$5, \$10, \$20, \$50 and \$100; and base metal coins in denominations of \$0.01, \$0.05, \$0.10, \$0.25, \$0.50 and \$1.00.

Table 18.5 gives figures for the production of Canadian circulating coins. Receipts of gold bullion at the Royal Canadian Mint, gold refined and investment coins produced are given in Table 18.6.

The Ottawa Mint, established as a branch of the Royal Mint under the United Kingdom Coinage Act of 1870, was opened on January 2, 1908. On December 1, 1931, by an Act of the Canadian Parliament it became the Royal

Canadian Mint and operated as a branch of the Department of Finance. The Mint was established as a Crown corporation in 1969 by the Government Organization Act of 1969 to allow for a more industrial type of organization and for flexibility in producing coins of Canada and other countries; to buy, sell, melt, assay and refine gold and precious metals; and to produce medals, plaques and other devices. The Mint reports to Parliament through the Minister of Supply and Services.

In December 1971, a Cabinet decision was made to locate a plant in Winnipeg for the mass production of coins. The plant was officially opened on April 30, 1976. It supplies all of Canada's circulating coins and produces coinage for foreign countries that lack minting capacity. The Ottawa plant produces gold, platinum, and silver bullion investment coins, collectors' coins, medals, plaques and other devices and refines Canadian gold.

18.1.4 Chartered banks

Canada's chartered banks operate under the Bank Act which regulates certain internal aspects of bank operations, such as auditing accounts, issuing stock, setting aside reserves and similar matters. In addition, the Bank Act generally provides for the supervision of the banks by the superintendent of financial institutions, a government-appointed official. The Act is revised at approximately 10-year intervals; the latest revision was enacted in December 1980. Under the revised Bank Act, foreign banks are permitted to incorporate subsidiaries by letters patent. The banking system, at October 31, 1987, consisted of eight Canadian-owned banks which have been chartered by Parliament, and 59 foreign-owned banks which have received their letters patent. The banks operated 6,958 banking offices in Canada, including about 170 offices of the foreign bank subsidiaries.

Among the foreign banks with subsidiaries in Canada, 44 had head offices in Toronto as at July 1988. These included 12 banks from the United States, four from the United Kingdom, 10 from Japan, three each from Switzerland and Israel, two each from Italy and the Federal Republic of Germany, and one each from France, Spain, India, Taiwan, Singapore, the Netherlands, Korea and Australia.

Montreal had headquarters for banks from France, the United States, Greece and Luxembourg. Vancouver had head offices for banks from Hong Kong, Japan and Korea.

Canadian banks generally accept various types of deposits from the public, including accounts payable on demand, both chequing and non-chequing notice deposits, and fixed-term deposits.

In addition to holding a portfolio of securities, they typically make loans under various conditions for commercial, industrial, agricultural, and consumer purposes. Under the current revision to the Bank Act, banks may also carry out certain types of leasing and factoring business through subsidiaries. Banks also generally deal in foreign exchange, receive and pay out bank notes, and provide safekeeping facilities.

Chartered bank financial statistics for recent years are given in Tables 18.7 – 18.10; month-end data are available in the *Bank of Canada Review*.

18.1.5 Federal Business Development Bank

The Federal Business Development Bank (FBDB) was established by an Act of Parliament in 1974 as a federal Crown corporation to succeed the Industrial Development Bank. Under the Act, which came into force in October 1975, this bank assists the development of new or existing business enterprises in Canada by providing financial and management services. It supplements such services available from other sources and it gives particular attention to the needs of smaller businesses.

It extends financial help in various forms to new or existing businesses of almost every type which are unable to obtain required financing from other sources on reasonable terms and conditions. To qualify for this financing, a business should have investment by others — to ensure a continuing commitment to the business — and the business should have reasonable expectation of success.

The bank's management counselling service, counselling assistance to small businesses, can help small businesses improve their methods. This service, supplementing counselling services available from the private sector, makes available the experience of successful business persons who are often retired.

To help improve management skills in small businesses, the bank conducts management training seminars in communities across Canada. It also develops 30-hour business management courses that are offered through the adult education divisions of community colleges. The FBDB also publishes booklets on a wide range of topics pertaining to the management of small businesses and provides information about assistance programs for small businesses sponsored by the federal government and others.

The head office is in Montreal; there are five regional offices and 77 branch offices across Canada. Some 98% of the loans made by the bank are approved at the branch or regional offices.

18.1.6 Other banking institutions

In addition to the savings departments of the chartered banks and of trust and loan companies, there are provincial government financial institutions in Ontario and Alberta, established under federal legislation and reporting monthly to the Department of Finance. The Province of Ontario Savings Office, in operation since 1922, has branches throughout the province. Province of Alberta Treasury branches, established in 1938, provide all banking services and are authorized lending agents for farm improvement loans and small business loans guaranteed by the federal government. The Montreal City and District Savings Bank, founded in 1846, became a Schedule B bank, September 28, 1987, under the name of Laurentian Bank of Canada.

Credit unions. Co-operative credit unions also encourage savings and extend loans to their members. The first credit union in Canada was founded in Lévis, Que. in 1900 to promote thrift by encouraging saving and to provide loans to members who could not get credit elsewhere or could get it only at high interest rates. For many years, growth was slow; in 1911, when the first figures were available, assets amounted to \$2 million and by 1940 they were only \$25 million. However, since that time there has been a spectacular increase. The first credit union legislation was passed in Nova Scotia in 1932, followed by legislation in Manitoba and Saskatchewan in 1937, and in Ontario and British Columbia in 1938.

Credit unions are under provincial legislation. Almost all local credit unions in each province belong to central credit unions operating within the province. The number of chartered local credit unions in Canada at the end of 1987 was 2,975. They reported total assets of \$55.1 billion. Quebec, with assets of \$28.5 billion, accounted for 52% of assets of all credit unions in Canada.

Outstanding loans extended by local credit unions at year end increased 15.6% in 1987 over 1986 to reach \$43.4 billion. Assets at \$55.1 billion increased 12.9% and deposit liabilities at \$46.9 billion increased 10.4% over 1986.

There were 14 central credit unions in 1987. Their main functions are to provide member local credit unions with financial and other services; to assist locals to increase the efficiency of their operations; and to extend the locals' usefulness and effectiveness to members. Most centrals also admit co-operatives as members. Total assets of the centrals increased 12.4% to \$13.6 billion over the 1986 total of nearly \$12.1 billion. The Canadian Co-operative Credit Society serves as the central organization for provincial centrals outside

Quebec and the Confédération des Caisses Populaires et d'Économie Desjardins du Québec serves the same function in Quebec.

Most funds are invested in securities and are financed by demand and term deposits from local credit union members. The combined total assets of local and central credit unions were nearly \$69 billion at the end of 1987.

18.2 Other financial institutions

18.2.1 Trust and mortgage loan companies

Trust and mortgage loan companies are registered with either federal or provincial governments. They operate under the federal Loan Companies Act (RSC 1970, c.L-12) and the Trust Companies Act (RSC 1970, c.T-16), or under the corresponding provincial legislation.

The business of trust companies falls into two distinct activities: financial intermediation and fiduciary. Under the financial intermediary function, trust corporations can accept funds in exchange for their own credit instruments such as trust deposits and guaranteed investment certificates. This aspect of its business is often referred to as the guaranteed funds portion and differs little from the savings business of chartered banks.

Trust companies are the only corporations in Canada with power to conduct fiduciary business. In this capacity they act as trustees for pension funds; registrars and transfer agents for corporate share issues; trustees for corporate debt issues; and administrators of estates, trusts and agencies.

Mortgage loan companies may also accept deposits and issue both short-term and long-term debentures. The investment of these funds is spelled out specifically in the acts under which they are regulated. Most of the funds are invested in mortgages secured by real estate.

Trust and mortgage loan companies were established and grew rapidly under provincial legislation in the late 19th and early 20th centuries. Some companies were chartered by special acts of Parliament but it was not until 1914 that the federal government began to regulate trust and mortgage loan companies registered under its acts. The federal superintendent of financial institutions regulates the federal companies and also, by arrangement with the provinces, trust and mortgage loan companies incorporated in Nova Scotia and trust companies incorporated in Prince Edward Island and Manitoba. Companies must be licensed by each province in which they wish to operate.

Although there may be some differences among the federal and provincial acts, broad lines of the legislation are common. In their financial intermediary business, the companies have the power to borrow or, in the case of trust companies, to accept funds in guaranteed accounts subject to maximum permitted ratios of these funds to shareholders' equity. The funds may be invested in specified assets which include: first mortgages secured by real property; government securities; bonds and equity of corporations having established earnings records; loans on the security of such bonds and stocks; and unsecured personal loans. Trust and mortgage loan companies are not required to hold specified cash reserves, as are the chartered banks, but there are broadly defined liquid asset requirements in a number of the acts.

In the 1920s, trust and mortgage companies held about half the private mortgage business in Canada but their growth rate fell off sharply because of the effects of the depression and World War II on the mortgage business. Since then strong demand for mortgage financing has led to sustained rapid expansion.

At the end of 1987, total assets of trust companies in the Statistics Canada survey were \$90.0 billion compared with \$79.4 billion in 1986, an increase of 13%. Trust companies have been putting a high proportion of their funds into mortgages and 62% of their total assets were represented by mortgages at the end of 1987. The trust companies had \$61.0 billion in term deposits outstanding and \$19.5 billion in demand and notice deposits at the end of 1987, accounting for 89% of total funds. About 44% of demand or savings deposits were in chequing accounts. There is considerable variety among the trust companies and a few have developed a substantial short-term business, raising funds by issuing certificates for terms as short as 30 days and also operating as lenders in the money market. But the main business of trust companies in their financial intermediary role is to channel savings into mortgages. In addition, trust companies, as at December 31, 1987, had \$173 billion under administration in estate, trust and agency accounts.

Mortgage loan companies had total assets of \$77.5 billion at the end of 1987, compared with \$57.8 billion in 1986. Their holdings of mortgages were \$64.3 billion, or 83% of total assets. To finance their investments, these companies raised \$38.4 billion of term deposits and \$18.0 billion of demand deposits and sold \$561 million of debentures.

More complete and up-to-date financial information may be found in quarterly financial

statements published by Statistics Canada and the Bank of Canada, the reports of the superintendent of financial institutions on loan and trust companies and the reports of provincial supervisory authorities.

18.3 Insolvency

The term "insolvency" refers to the state or condition of a person (or of a company engaged in business) when he is no longer able to pay his debts as they normally become due for payment.

Bankruptcy may be defined as a legal process which stays all legal actions pertaining to a debtor's debts and which, in general, involves a summary and immediate seizure of all debtor property as assets by a trustee, distribution of these assets among the estate creditors, and discharge of the debtor from future liability for most of the debts which existed at the moment of bankruptcy.

While involving essentially the same administrative principles and processes under the Bankruptcy Act, a distinction is made between a consumer bankruptcy and a commercial bankruptcy because of different conceptual objectives and the impact of provincial legislation respecting the property of an individual which is exempt from seizure in a bankruptcy. A consumer bankruptcy is viewed primarily as a mechanism for providing relief to a financially overburdened debtor from legal actions such as the seizure of assets and the imposition of wage garnishments. A commercial bankruptcy is usually more complex and it is primarily a mechanism for the orderly and equitable distribution of assets of an insolvent company to free them for eventual reintegration into the economy.

Responsibility for the supervision of the bankruptcy process rests with a Superintendent of Bankruptcy appointed by the Governor-in-Council who oversees the provisions of the Bankruptcy Act as it applies to trustees in bankruptcy, creditors and bankrupts. The Superintendent of Bankruptcy is also the Director of the bankruptcy branch of Consumer and Corporate Affairs Canada. His prime responsibility is to promote confidence in and to protect the integrity of the credit system through the regulation of the bankruptcy process and through the systematic detection and prosecution of fraudulent practices and other abuses.

Operational responsibilities of the Superintendent of Bankruptcy include licensing and supervision of all trustees in bankruptcy, examining bankrupt estates for possible offences under the Bankruptcy Act or the Criminal Code,

Chart 18.1

Consumer bankruptcies

maintaining a record of all bankruptcies and of related statistical information and generally supervising a consumer bankruptcy program. The Superintendent has representatives in major cities across Canada from whom more detailed information concerning bankruptcy and insolvency may be obtained.

Receiverships constitute the other major consequence of aggravated commercial insolvency and occur when a receiver is appointed to take possession or control under a security agreement or following a court order of all or part of the property of a debtor.

A receivership is precipitated by a secured creditor in an effort to protect his investment. In the majority of receiverships, as with many commercial bankruptcies, unsecured creditors receive little or nothing after the secured creditors realize on their security. (See Tables 18.20 to 18.23.)

18.4 Insurance

Insurance business is transacted in Canada by about 900 companies and societies. Details of the classes of insurance each company or society is authorized to transact and statistical information may be found in the published reports

of individual superintendents of insurance for the provinces. Financial statistics of the federally registered companies and fraternal benefit societies are published in the annual report of the federal superintendent.

18.4.1 Life insurance

Total life insurance in force in Canada at the end of 1987 amounted to \$828 billion (\$763 billion in 1986). There were 155 companies, one less than in 1986, registered by the federal insurance department to transact life insurance (59 Canadian, 11 British and 85 foreign). There were also 39 registered fraternal benefit societies (16 Canadian and 23 foreign).

Table 18.24 gives figures for selected years since 1880 for amounts of new insurance effected and an analysis of amounts in force at the end of the year. Table 18.25 compares newly effected written business and total amounts in force for 1984-87.

Net insurance premiums written in 1987 totalled \$5.2 billion compared to \$4.6 billion in 1986 and \$4.2 billion in 1985. Table 18.26 gives a provincial analysis of the premium income from 1984 to 1987 on a direct written basis only.

The major categories of assets and related liabilities of federally registered life insurance

companies are given in Table 18.27. The major sources of income and selected expenditures are given in Table 18.28.

Average amounts owned. Excluding persons not covered by life insurance, the average amount of coverage for each insured individual was about \$55,200 on December 31, 1986.

The average amount owned by each household at the end of 1986 was about \$86,400. This was quadruple the figure in 1970.

Purchases. During 1986, Canadians purchased \$135 billion of life insurance, over nine times the 1970 amount.

Ownership by nationality of company. Of the \$819 billion of life insurance owned by Canadians at the end of 1986, 81.6% was with Canadian-incorporated companies, 12.8% with US companies, 3.6% with British companies and 2.1% with companies incorporated in other parts of Europe. Federally registered companies provided 93% of the total life insurance in force.

For registered fraternal benefit societies, certificates in force in Canada totalled \$5.0 billion at the end of 1987 compared to \$4.7 billion at the end of 1986 and \$4.5 billion at the end of 1985. Premiums written in Canada totalled \$133 million during 1987, of which \$98 million was applicable to Canadian societies and \$35 million to foreign societies. In 1986, with \$120 million in premiums written, \$86 million was applicable to Canadian societies and \$34 million to foreign societies. Canadian societies also reported \$237 million in premiums written outside Canada in 1986 and \$233 million in 1987. In 1985, premiums written totalled \$112 million in Canada and in 1984 totalled \$95 million. A total of \$79 million went to Canadian societies in 1985 and \$33 million to foreign societies, while \$217 million in policies written outside Canada were reported by Canadian societies.

18.4.2 Property and casualty insurance

Direct premiums written in Canada for property and casualty insurance totalled \$13.5 billion in 1986, up from \$11.2 billion in 1985 (Table 18.30).

At the end of 1987, there were 248 companies (109 Canadian, 22 British and 117 foreign) registered by the federal insurance department to transact property and casualty insurance. At the end of 1986, there were 243 companies (106 Canadian, 23 British and 114 foreign).

For federally registered companies, premium income on a net basis totalled \$10.4 billion in 1987 and \$9.6 billion in 1986.

Property insurance net premiums, written in Canada during 1987, were \$3.5 billion and in 1986

were \$3.3 billion (Table 18.29). Net claims were \$2.1 billion in 1987, up \$283 million from 1986. Net premiums for automobile insurance written in Canada during 1987 were \$5.0 billion and in 1986 were \$4.5 billion. Net claims incurred were \$4.3 billion in 1987, up \$550 million from 1986.

Personal accident and sickness insurance net premiums written in Canada during 1987 were \$220 million and during 1986 were \$239 million. Net premiums earned in 1987 were \$231 million and net claims incurred were \$140 million, a claims ratio of 61%. In 1986, net premiums earned were nearly \$234 million and net claims incurred were \$154 million, a claims ratio of 66%. Net premiums for liability insurance, written in Canada in 1987, were \$1,230 million and in 1986 were \$1,151 million. Net premiums earned in 1987 were \$1,166 million and net claims were \$876 million, a claims ratio of 75%. In 1986, net premiums earned were \$972 million and net claims were \$765 million, a claims ratio of 79%.

The major categories of assets and related liabilities of federally registered property and casualty insurance companies are given in Table 18.31.

Underwriting experience in Canada, over the past years, has ranged from losses of \$12.3 million in 1978 to a loss of \$1,302.5 million in 1985 and a loss of \$625.1 million in 1987.

18.4.3 Fire losses

Fire losses in Canada totalled \$956.2 million in 1987, a decrease from \$973.5 million in 1986. The total number of fires was 67,168 in 1987, a decrease from 67,844 in 1986. The number of children who died from fire was 76 in 1987, a decrease from 108 in 1986 (Table 18.34).

The fire record reflected a decrease in fire deaths for 1987; fire injuries also decreased from 1986. There were 516 fire fatalities in 1987, a decrease from 553 in 1986. The death rate for 1987 was 2.01 per 100,000 population. Injuries decreased to 3,843 in 1987 from 3,870 in 1986 while property losses decreased less than 2%.

18.5 Government insurance

18.5.1 Deposit insurance

The Canada Deposit Insurance Corporation (CDIC) was established in 1967 to provide insurance against the loss of part or all of deposits made with members of the Corporation, to promote standards of sound business and financial practices for members, and to contribute to the stability and competitiveness of the financial system in Canada.

Membership with CDIC is limited to banks, trust companies and loan companies. To obtain membership, an application must be submitted and approved. Approval is subject to the fulfilment of certain standards and conditions and, in the case of a provincial institution, authorization by the province of incorporation is also required. Federally incorporated financial institutions cannot accept deposits from the public unless they are a member of CDIC. For provincially incorporated institutions, this requirement is dependent on provincial legislation.

The maximum deposit insurance provided by CDIC is \$60,000 per person with each member. This amount applies to the combined total of all the insurable deposits a person may have with the same member. Separate insurance, to the \$60,000 maximum, applies for joint deposits, trust deposits and deposits held in registered retirement savings plans and registered retirement income funds.

CDIC insures Canadian currency "deposits" made with members. A deposit is the unpaid balance of monies received or held by a member in the usual course of its deposit-taking business for which the member has issued a receipt, certificate, debenture (other than bank debenture), draft, certified draft or cheque, travellers' check, prepaid letter of credit, money order or any other instrument that the member is primarily liable for and that is repayable on demand or, on or before the expiration of five years from the date the monies are received by the member.

18.5.2 Provincial government insurance

Manitoba. The Manitoba Public Insurance Corporation is a Crown corporation established under the Automobile Insurance Act. The Act, now known as the Manitoba Public Insurance

Corporation Act, provides for establishment of a universal, compulsory automobile insurance plan and of other plans of automobile insurance within the province. The corporation started operations in November 1971. Revenue for the plan comes from two sources — premiums on drivers' licences and premiums on vehicles. Premiums are also based on such factors as year, make, model and use of the car, and rating territory, based on the address of the vehicle owner. Since mid-1975, the corporation has offered a wide range of non-compulsory general insurance coverages in competition with private insurance companies.

Saskatchewan. SGI Insurance Services, a provincial Crown corporation in Saskatchewan, was established in 1944 as a general insurer with the principal purposes of providing insurance coverage at reasonable rates and boosting the provincial economy by generating investment income and premium tax revenue. It became one of the largest casualty/property insurance companies in Canada.

SGI offers comprehensive home and tenant policies and most other personal lines of insurance, excluding sickness and life. Commercial property insurance, business interruption insurance, commercial auto coverage, and liability insurance are available for businesses.

SGI also administers the Automobile Accident Insurance Act (AAIA) on behalf of the province. This provides Saskatchewan motorists with comprehensive universal insurance coverage, including \$200,000 third party liability, medical and disability coverage (plus loss of income) and collision coverage. This is the minimum required by law; extended coverage may be purchased from SGI or any other insurer. SGI competes directly with other insurers for automobile insurance beyond the compulsory coverages.

Sources

- 18.1 – 18.1.2 Financial Institution Division, Bank of Canada.
- 18.1.3 Communications, Royal Canadian Mint.
- 18.1.4 Financial Institution Division, Bank of Canada; The Canadian Bankers' Association.
- 18.1.5 Federal Business Development Bank.
- 18.1.6 The Montreal City and District Savings Bank; Industrial Organization and Finance Division, Statistics Canada.
- 18.2.1 Industrial Organization and Finance Division, Statistics Canada.
- 18.3 Office of the Superintendent of Bankruptcy, Department of Consumer and Corporate Affairs.
- 18.4 – 18.4.2 Office of the Superintendent of Financial Institutions Canada.
- 18.4.3 Office of the Fire Commissioner of Canada, Department of Labour.
- 18.5 Canada Deposit Insurance Corporation; The Manitoba Public Insurance Corporation; SGI Insurance Services, Saskatchewan.

FOR FURTHER READING

Selected publications from Statistics Canada

- Industrial Corporations, Financial Statistics, quarterly. 61-003
- Corporate Financial Statistics, annual. 61-207
- Credit Unions, annual. 61-209
- Annual Report of the Minister of Supply and Services Canada under the Corporations and Labour Unions Returns Act. Part I: Corporations, annual. 61-210
- Capital and Repair Expenditures, Manufacturing Sub-industries, Intentions, annual. 61-214
- Capital Expenditures of Domestic and Foreign Controlled Establishments in Manufacturing, Mining and Forestry, annual. 61-215. Discontinued, last issue 1987.
- Exploration, Development and Capital Expenditures for Mining and Petroleum and Natural Gas Wells, Intentions, annual. 61-216
- Small Business in Canada, a Statistical Profile, annual. 61-231
- Inter-corporate Ownership, biennial. 61-517
- Sales per Selling Area of Independent Retailers, 146 p., 1986. 61-522. Out of print.
- Small Business Profiles, Canada, Provinces and Territories, 13 volumes, annual. 61-601 to 61-613. Discontinued, last issues 1984 or 1985.
- Financial Institutions, Financial Statistics, quarterly. 61-006

More information about these publications is available from Statistics Canada. See Appendix F for a complete list of Statistics Canada offices.

TABLES

.. not available
 ... not appropriate or not applicable
 — nil or zero
 -- too small to be expressed

e estimate
 p preliminary
 r revised
 certain tables may not add due to rounding

18.1 Bank rates from October 27, 1982 to December 28, 1988

Date of change	% per annum	Date of change	% per annum	Date of change	% per annum
Oct. 27, 1982	11.53	Nov. 28, 1984	10.78	Dec. 31, 1986	8.49
Nov. 24, 1982	10.87	Dec. 26, 1984	10.16	Jan. 28, 1987	7.74
Dec. 29, 1982	10.26	Jan. 30, 1985	9.66	Feb. 25, 1987	7.59
Jan. 26, 1983	9.81	Feb. 27, 1985	10.95	Mar. 25, 1987	7.14
Feb. 23, 1983	9.43	Mar. 27, 1985	11.18	Apr. 29, 1987	8.26
Mar. 30, 1983	9.42	Apr. 24, 1985	9.75	May 27, 1987	8.54
Apr. 27, 1983	9.46	May 29, 1985	9.59	June 24, 1987	8.59
May 25, 1983	9.38	June 26, 1985	9.57	July 29, 1987	8.76
June 29, 1983	9.42	July 31, 1985	9.31	Aug. 26, 1987	9.24
July 27, 1983	9.51	Aug. 28, 1985	9.20	Sept. 30, 1987	9.57
Aug. 31, 1983	9.57	Sept. 25, 1985	9.31	Oct. 28, 1987	8.26
Sept. 28, 1983	9.52	Oct. 30, 1985	8.77	Nov. 25, 1987	8.48
Oct. 26, 1983	9.45	Nov. 27, 1985	8.98	Dec. 30, 1987	8.68
Nov. 30, 1983	9.63	Dec. 25, 1985	9.49	Jan. 27, 1988	8.63
Dec. 28, 1983	10.04	Jan. 29, 1986	10.33	Feb. 24, 1988	8.58
Jan. 25, 1984	9.98	Feb. 26, 1986	11.84	Mar. 30, 1988	8.78
Feb. 29, 1984	10.04	Mar. 26, 1986	10.44	Apr. 27, 1988	9.06
Mar. 28, 1984	10.76	Apr. 30, 1986	9.27	May 25, 1988	9.12
Apr. 25, 1984	10.82	May 28, 1986	8.43	June 29, 1988	9.44
May 30, 1984	11.60	June 25, 1986	8.84	July 27, 1988	9.53
June 27, 1984	11.98	July 30, 1986	8.63	Aug. 31, 1988	10.03
July 25, 1984	13.24	Aug. 27, 1986	8.58	Sept. 28, 1988	10.54
Aug. 29, 1984	12.39	Sept. 24, 1986	8.63	Oct. 26, 1988	10.51
Sept. 26, 1984	12.28	Oct. 29, 1986	8.62	Nov. 30, 1988	10.84
Oct. 31, 1984	11.71	Nov. 26, 1986	8.47	Dec. 28, 1988	11.17

On March 10, 1980 the Bank of Canada announced that beginning on March 13, 1980 and until further notice, its bank rate would be set at 1/4 percentage point above the latest average rate established in the weekly tender for 91-day treasury bills issued by the Government of Canada. The bank rates shown in the above table are as at the last Wednesday of the month.

18.2 Assets and liabilities of the Bank of Canada, as at December 31, 1983-87 (million dollars)

Item	1983	1984	1985	1986	1987
Assets					
Government of Canada direct and guaranteed securities					
Treasury bills	2,763	3,483	3,984	7,804	9,677
Other securities three years and under	4,576	4,654	3,460	2,969	2,603
Other securities over three years	9,688	9,015	8,224	7,438	7,915
Advances to members of the Canadian Payments Association	25	50	3,469	868	798
Other investments	274	476	3	1,024	1,187
Foreign currency deposits	309	187	569	323	311
All other assets	3,046	1,068	1,426	519	532
Total assets	20,681	18,934	21,135	20,945	23,023
Liabilities					
Notes in circulation					
Held by chartered banks	2,556	2,986	3,371	3,693	4,004
All other	11,607	12,250	13,301	14,218	15,443
Canadian dollar deposits					
Government of Canada	90	55	313	49	23
Chartered banks	3,446	2,772	2,201	2,446	2,649
Other members of the Canadian Payments Association	147	37	206	241	287
Other	150	231	169	159	429
Foreign currency liabilities	83	13	372	87	134
All other liabilities	2,601	591	1,202	51	53
Total liabilities	20,681	18,934	21,135	20,945	23,023

18.3 Bank of Canada note liabilities, as at December 31, 1983-87 (thousand dollars)

Denomination	1983	1984	1985	1986	1987
Bank of Canada notes					
\$1	298,799	308,315	323,196	335,727	329,776
\$2	238,285	244,265	255,218	277,119	299,563
\$5	447,359	479,537	511,713	605,308	602,929
\$10	1,246,433	1,222,917	1,217,986	1,222,061	1,266,451
\$20	5,824,801	6,120,128	6,499,277	6,703,465	7,051,609
\$25	46	46	46	46	46
\$50	1,685,124	1,928,449	2,225,079	2,464,680	2,773,682
\$100	3,894,405	4,325,989	4,899,910	5,410,534	6,038,812
\$500	24	24	24	24	24
\$1,000	514,936	593,469	726,669	879,448	1,071,611
Total	14,150,212	15,223,139	16,659,118	17,898,486	19,434,533
Note issues in process of retirement	12,876	12,875	12,874	12,874	12,874
Total, Bank of Canada note liabilities	14,163,088	15,236,012	16,671,992	17,911,360	19,447,407
Held by					
Chartered banks	2,556,293	2,986,290	3,370,820	3,692,917	4,004,246
Others	11,606,795	12,249,722	13,301,172	14,218,443	15,443,161

18.4 Canadian dollar currency and chartered bank deposits, as at December 31, 1976-87 (million dollars)

Year	Currency outside banks			Chartered bank deposits				Total currency and chartered bank deposits ¹		
	Notes	Coin	Total	Personal savings deposits	Government of Canada deposits	Other deposits ¹	Total ¹	Total including government deposits	Held by general public	
									Including personal savings deposits	Excluding personal savings deposits
1976	6,573	760	7,333	40,478	3,103	31,842	75,423	82,756	79,653	39,175
1977	7,268	826	8,094	44,948	4,733	36,579	86,259	94,353	89,621	44,673
1978	8,075	890	8,964	51,528	6,466	42,023	100,017	108,981	102,516	50,988
1979	8,514	954	9,468	64,216	6,418	51,288	117,922	127,390	124,972	60,756
1980	9,377	1,024	10,401	74,945	4,093	52,838	131,876	142,277	138,184	63,239
1981 ²	9,638	1,081	10,719	92,513	7,138	67,355	167,006	177,725	170,587	78,074
1982	10,491	1,142	11,633	100,037	6,906	66,800	173,743	185,376	178,470	78,433
1983	11,607	1,202	12,809	101,485	6,057	62,272	169,814	182,623	176,566	75,081
1984	12,250	1,259	13,509	109,468	2,797	64,527	176,791	190,300	187,503	78,035
1985	13,301	1,321	14,622	119,063	4,350	63,327	186,740	201,362	197,012	77,949
1986	14,218	1,383	15,601	129,855	2,045	67,531	199,431	215,032	212,987	83,132
1987	15,443	1,530	16,973	138,224	1,817	76,837	216,878	233,851	235,668	97,444

¹ Less total float (cheques and other items in transit).² Effective November 1981, chartered bank data are reported on a consolidated basis.**18.5 Cumulative production of Canadian circulation coinage¹, 1985-88 (pieces)**

	1985 [†]	1986	1987	1988
\$1 (aureate) Loon	—	—	199,300,000	143,627,500
\$1 (Ni) Voyageur	3,104,592	3,089,225	—	—
50¢	2,188,374	781,400	373,000	—
25¢	158,734,000	132,220,000	53,408,000	70,108,473
10¢	143,025,000	168,620,000	147,309,000	162,998,558
5¢	126,618,000	156,104,000	106,299,000	74,600,000
1¢	782,752,500	740,335,000	918,549,000	393,676,880

¹ Up to December 31, 1987; total coins of each date and denomination, regardless of the calendar year in which they were produced.

18.6 Refinery operations, gold, 1980-87

Year	Deposits ('000 oz t)		Refined ('000 oz t)	
	All sources	Canadian mines	All sources	Canadian mines
1980	3,541	1,131	2,957	922
1981	3,227	1,140	2,587	934
1982	3,796	1,585	3,148	1,248
1983	3,838	1,925	3,072	1,559
1984	4,464	2,063	3,761	1,678
1985	5,215	2,388	4,367	1,956
1986	8,032	2,418	4,509	2,012
1987	5,933	2,862	3,708	2,283

18.7 Chartered banks, cash and secondary reserves, 1976-87 (million dollars)

Year	Statutory deposits (excluding adjustments for previous periods)		Cash reserves		Secondary reserves
	Canadian dollar	Foreign currency	Statutory coin and Bank of Canada notes	Bank of Canada deposits	
1976	69,642	—	1,071	2,911	4,244
1977	80,496	—	1,161	3,411	4,568
1978	91,299	—	1,250	3,997	5,455
1979	107,162	—	1,361	4,564	6,330
1980	123,753	—	1,499	4,983	7,393
1981	137,568	6,525	1,748	5,403	8,884
1982	145,151	6,324	1,939	4,917	8,450
1983	135,447	6,271	2,107	4,075	12,697
1984	126,905	6,534	2,436	3,053	12,070
1985	130,193	7,085	2,742	2,650	12,361
1986	132,948	7,713	2,980	2,539	12,088
1987	133,825	8,351	3,235	2,430	13,533

Statutory deposits and coin, and Bank of Canada notes are averages of the months in the year shown; the monthly levels are averages of the four consecutive Wednesdays ending with the second last Wednesday of the previous month until January 1981. Effective February 1981, monthly levels are averages of the four consecutive Wednesdays ending with the second Wednesday of the previous month. Bank of Canada deposits and secondary reserves are also averages of the months in the year shown; however, the monthly levels are calculated as an average of the juridical days in that month. From February 1968 to January 1981 the required primary cash reserve ratios were 12% for Canadian dollar demand deposits and 4% for Canadian dollar notice deposits. As of February 1, 1981, the required ratios were 12% for reservable Canadian dollar demand deposits, 2% for reservable Canadian dollar notice deposits plus 2% for the amount by which a bank's reservable Canadian dollar notice deposits exceed \$500 million, and 3% for reservable foreign currency deposits. The secondary reserve requirement was set as follows: 8.5% in December 1971, 8% in January 1972, 7% in December 1974, 6% in January 1975, 5.5% in March 1975, 5% in February 1977 and 4% in December 1981.

18.8 Classification of chartered bank deposit liabilities payable to the public in Canada and in Canadian currency, as at April 30, 1984-87 (number of accounts)

Deposit accounts of the public of:	1984			1985		
	Personal savings deposit accounts	Other deposit accounts of the public	Total deposit accounts of the public	Personal savings deposit accounts	Other deposit accounts of the public	Total deposit accounts of the public
Less than \$1,000	18,125,457	5,636,882	23,762,339	18,207,098	5,014,063	23,221,161
\$1,000 or over but less than \$10,000	9,774,542	1,974,515	11,749,057	10,277,359	1,872,952	12,150,311
\$10,000 or over but less than \$100,000	2,673,400	443,494	3,116,894	2,947,644	453,289	3,400,933
\$100,000 or over	58,337	74,449	132,786	70,485	72,073	142,558
Total deposits	30,631,736	8,129,340	38,761,076	31,502,586	7,412,377	38,914,963
	1986			1987		
	Personal savings deposit accounts	Other deposit accounts of the public	Total deposit accounts of the public	Personal savings deposit accounts	Other deposit accounts of the public	Total deposit accounts of the public
Less than \$1,000	18,436,118	4,680,023	23,116,141	17,653,867	4,356,737	22,010,604
\$1,000 or over but less than \$10,000	10,236,025	1,811,621	12,047,646	10,532,510	1,898,075	12,430,585
\$10,000 or over but less than \$100,000	3,126,822	460,548	3,587,370	3,394,046	476,223	3,870,269
\$100,000 or over	74,444	71,953	146,397	89,902	75,640	165,542
Total deposits	31,873,409	7,024,145	38,897,554	31,670,325	6,806,675	38,477,000

18.9 Total Canadian-owned chartered banks, consolidated statement of revenue and expense, 1983-87 (million dollars)

Item	Financial years ending in				
	1983	1984	1985 ¹	1986	1987
Interest income					
Loans, excluding leases	29,715.1	30,372.8	30,429.9	30,251.3	28,720.8
Lease financing	285.6	255.0	228.7	258.8	258.8
Securities	2,795.0	3,222.8	3,570.5	3,640.3	3,766.3
Deposits with banks	3,733.0	4,516.9	4,579.7	3,568.9	3,181.4
Total including dividends	36,528.7	38,367.5	38,808.8	37,719.3	35,937.3
Interest expense					
Deposits	26,929.0	28,720.3	27,926.5	25,656.8	23,722.1
Bank debentures	475.4	498.8	536.6	598.9	534.6
Liabilities other than deposits	267.1	228.1	255.7	501.9	211.3
Total	27,671.5	29,447.2	28,718.8	26,757.6	24,468.0
Net interest income	8,857.2	8,920.3	10,090.0	10,961.7	11,469.3
Less provision for loan losses	-1,710.6	-2,003.2	-2,339.8	-2,996.2	-2,722.5
Net interest income after provision for loan losses	7,146.6	6,917.1	7,750.2	7,965.5	8,696.8
Other income	2,340.1	2,627.1	3,135.4	3,600.7	4,511.5
Net interest and other income	9,486.7	9,544.2	10,885.6	11,566.2	13,208.3
Non-interest expense					
Salaries	3,756.9	3,931.1	4,321.4	4,596.6	4,873.6
Pension contribution and other staff benefits	365.7	341.9	381.4	344.9	373.9
Premises and equipment, including depreciation	1,220.2	1,307.5	1,462.9	1,605.6	1,721.2
Other	1,421.4	1,540.5	1,749.7	2,029.0	2,253.8
Total	6,764.2	7,121.0	7,915.4	8,576.1	9,222.5
Net income before provision for income taxes	2,722.5	2,423.2	2,970.2	2,990.1	3,985.8
Provision for income taxes	-813.3	-629.5	-860.7	-854.4	-1,438.4
Net income before minority interest in subsidiaries and extraordinary items	1,909.2	1,793.7	2,109.5	2,135.7	2,547.4
Minority interest in subsidiaries	-13.0	-9.8	-8.8	-10.8	-12.5
Extraordinary items	36.7	—	5.7	-63.4	2.0
Special provision for losses on transborder claims	—	—	—	—	-3,480.9
Net income	1,932.9	1,783.9	2,106.4	2,061.5	-944.0

Note: Since 1965 all chartered banks have ended their years on October 31. The consolidated statements of revenue and expense and of shareholders' equity and appropriations for contingencies are based on the format prescribed in Schedules L, M and N of the 1980 Bank Act. The operations of all majority-owned subsidiaries are fully consolidated into income with the minority interest shown separately. Where a bank holds at least 20% but not more than 50% of a company's voting shares, the bank takes into its income an amount equivalent to its share of that company's earnings.

¹ Excludes the Canadian Commercial Bank and Northland Bank.

18.10 Total Canadian-owned chartered banks, statement of shareholders' equity and appropriations for contingencies, 1983-87 (million dollars)

Item	Financial years ending in				
	1983	1984	1985 ¹	1986	1987
Capital stock					
Balance at beginning of year	2,885.1	3,980.4	5,690.9	7,288.6	8,864.7
Additions from capital stock issues					
Common shares	195.8	556.9	760.5	1,216.6	1,875.5
Preferred shares	445.2	1,241.3	51.1	252.7	-125.7
Transfer from contributed surplus	454.3	46.4	922.1	—	544.2
Balance at end of year	3,980.4	5,825.0	7,424.6	8,757.9	11,168.7

18.10 Total Canadian-owned chartered banks, statement of shareholders' equity and appropriations for contingencies, 1983-87 (million dollars) (concluded)

Item	Financial years ending in				
	1983	1984	1985 ¹	1986	1987
Contributed surplus					
Balance at beginning of year	1,311.8	975.9	1,116.5	365.2	475.2
Additions from capital stock issues	122.3	217.1	182.9	110.2	79.8
Transfer to capital stock	-454.3	-46.4	-922.1	—	-554.2
Transfer to retained earnings	-3.9	-4.4	—	-0.2	—
Balance at end of year	975.9	1,142.2	377.3	475.2	0.8
General reserve					
Balance at beginning of year	25.3	—	—	—	—
Transfer from (to) retained earnings	-25.3	—	—	—	—
Balance at end of year	—	—	—	—	—
Retained earnings					
Balance at beginning of year	7,035.4	7,556.7	8,007.0	8,998.3	9,867.1
Prior period adjustments	0.3	-14.4	-11.8	—	-13.5
Net unrealized foreign exchange translation gain	—	6.7	45.8	17.8	-135.9
Share issue expenses, net	-5.4	-20.6	-6.3	-16.3	-37.0
Net income for year	1,932.9	1,783.9	2,106.4	2,061.5	-944.0
Dividends					
Common	-585.9	-648.0	-695.5	-771.9	-1,058.3
Preferred	-176.9	-252.5	-292.3	-282.3	-264.7
Other	—	—	—	3.1	50.8
Transfer from (to) appropriations for contingencies	-1,048.7	-754.5	-471.9	-562.2	444.4
Income taxes related to above transfer	375.8	347.6	356.5	305.6	-239.9
Transfer from (to) general reserve	25.3	—	—	—	—
Transfer from contributed surplus	3.9	4.4	—	—	—
Balance at end of year	7,556.7	8,009.3	9,037.9	9,753.6	7,669.0
Total shareholders' equity at end of year	12,513.0	14,976.5	16,839.8	18,986.7	18,838.5
Appropriations for contingencies					
Balance at beginning of year	925.1	745.2	1,001.2	1,195.7	1,256.6
Net loss experience on loans	-2,939.1	-2,473.5	-2,603.3	-3,530.6	-1,964.9
Provision for loan losses	1,710.5	2,003.2	2,339.8	2,996.2	2,772.7
Transfer from (to) retained earnings	1,048.7	754.5	471.9	562.2	-444.4
Deferred income taxes	—	—	—	6.5	-53.9
Balance at end of year	745.2	1,029.4	1,209.6	1,230.1	1,566.1
Total shareholders' equity and appropriations for contingencies	13,258.2	16,005.9	18,049.4	20,216.8	20,404.6

See note, Table 18.9.

¹ Excludes the Canadian Commercial Bank and Northland Bank.
18.11 Branches¹ of chartered banks, by province, as at December 31, 1930-80 and October 31, 1983-87

Province or territory	1930	1950	1970	1980	1983	1984	1985	1986	1987
Newfoundland	—	39	114	149	142	139	137	137	136
Prince Edward Island	28	23	30	34	30	30	30	30	30
Nova Scotia	138	144	202	247	243	243	246	248	251
New Brunswick	102	100	136	180	179	179	178	174	175
Quebec	1,183	1,164	1,524	1,524	1,273	1,276	1,259	1,264	1,276
Ontario	1,409	1,257	2,307	2,878	2,775	2,775	2,777	2,775	2,802
Manitoba	239	165	310	364	346	343	347	342	339
Saskatchewan	447	238	350	384	392	391	396	390	388
Alberta	304	246	521	759	814	813	791	761	731
British Columbia	229	294	684	865	853	843	831	823	812
Yukon and Northwest Territories	4	9	21	30	27	28	27	27	27
Canada	4,083	3,679	6,199	7,414	7,074	7,060	7,019	6,971	6,967

¹ Figures include sub-agencies and sub-branches in Canada receiving deposits for the banks employing them.

18.12 Branches¹ of individual chartered banks, by province, as at July 31, 1988

Bank	Province or territory											Canada
	Nfld.	PEI	NS	NB	Que.	Ont.	Man.	Sask.	Alta.	BC	YT and NWT	
Bank of Alberta	—	—	—	—	—	—	—	—	3	—	—	3
Bank of Montreal	29	3	34	26	211	469	67	62	140	154	3	1,198
The Bank of Nova Scotia	61	9	70	54	87	419	34	50	115	107	2	1,008
Canadian Imperial Bank of Commerce	17	8	36	24	178	670	79	100	175	181	16	1,484
National Bank of Canada	1	2	5	29	472	65	5	2	2	—	—	583
The Royal Bank of Canada	21	6	86	31	212	581	98	118	154	178	4	1,489
The Toronto-Dominion Bank	5	2	17	9	86	522	54	50	109	98	2	954
Western and Pacific Bank of Canada	—	—	—	—	—	—	—	—	—	2	—	2
ABN Bank Canada	—	—	—	—	1	1	—	—	—	1	—	3
ANZ Bank Canada	—	—	—	—	—	1	—	—	—	—	—	1
BT Bank of Canada	—	—	—	—	—	1	—	—	—	—	—	1
Banca Commerciale Italiana of Canada	—	—	—	—	2	4	—	—	—	1	—	7
Banca Nazionale del Lavoro of Canada	—	—	—	—	1	1	—	—	—	1	—	3
Banco Central of Canada	—	—	—	—	1	1	—	—	—	—	—	2
Bank of America Canada	—	—	—	—	6	6	—	—	3	4	—	19
Bank of Boston Canada	—	—	—	—	1	1	—	—	—	—	—	2
Bank of Credit and Commerce Canada	—	—	—	—	2	4	—	—	2	2	—	10
Bank Hapoalim (Canada)	—	—	—	—	—	2	—	—	—	—	—	2
Bank Leumi le-Israel (Canada)	—	—	—	—	1	2	—	—	—	—	—	3
The Bank of Tokyo Canada	—	—	—	—	1	1	—	—	1	1	—	4
Banque Nationale de Paris (Canada)	—	—	—	—	5	1	—	—	—	1	—	7
Barclays Bank of Canada	1	—	1	—	1	4	1	1	2	1	—	12
The Chase Manhattan Bank of Canada	—	—	—	—	1	1	—	—	—	—	—	2
Chemical Bank of Canada	—	—	—	—	—	1	—	—	—	—	—	1
Citibank Canada	—	—	—	—	1	7	—	—	1	2	—	11
Crédit Commercial de France (Canada)	—	—	—	—	1	1	—	—	—	—	—	2
Crédit Lyonnais Canada	—	—	—	—	1	1	—	—	1	1	—	4
Crédit Suisse Canada	—	—	—	—	1	1	—	—	1	1	—	4
Dai-ichi Kangyo Bank (Canada)	—	—	—	—	—	1	—	—	—	1	—	2
Daiwa Bank Canada	—	—	—	—	—	1	—	—	—	—	—	1
Deutsche Bank (Canada)	—	—	—	—	—	1	—	—	—	—	—	1
Dresdner Bank (Canada)	—	—	—	—	—	1	—	—	—	—	—	1
First Interstate Bank of Canada	—	—	—	—	—	1	—	—	—	1	—	2
The First National Bank of Chicago (Canada)	—	—	—	—	—	1	—	—	—	—	—	1
Fuji Bank Canada	—	—	—	—	—	1	—	—	—	—	—	1
Hanil Bank Canada	—	—	—	—	—	1	—	—	—	1	—	2
Hongkong Bank of Canada	—	—	1	—	2	4	1	1	4	44	—	57
The Industrial Bank of Japan (Canada)	—	—	—	—	—	1	—	—	—	1	—	2
International Commercial Bank of Cathay (Canada)	—	—	—	—	—	2	—	—	—	—	—	2
Irving Bank Canada	—	—	—	—	—	1	—	—	—	—	—	1
Israel Discount Bank of Canada	—	—	—	—	—	1	—	—	—	—	—	1
Korea Exchange Bank of Canada	—	—	—	—	—	2	—	—	—	1	—	3
Lloyds Bank Canada	1	—	3	2	10	19	1	2	10	7	—	55
Manufacturers Hanover Bank of Canada	—	—	—	—	1	1	—	—	1	1	—	4
Mellon Bank Canada	—	—	—	—	—	1	—	—	—	—	—	1
Mitsubishi Bank of Canada	—	—	—	—	—	1	—	—	—	1	—	2
The Mitsui Bank of Canada	—	—	—	—	—	1	—	—	—	1	—	2
Morgan Bank of Canada	—	—	—	—	—	1	—	—	—	—	—	1
National Bank of Detroit Canada	—	—	—	—	—	3	—	—	—	—	—	3
National Bank of Greece Canada	—	—	—	—	3	1	—	—	—	1	—	5
National Westminster Bank of Canada	—	—	—	—	1	1	—	—	1	—	—	3
Overseas Union Bank of Singapore (Canada)	—	—	—	—	—	1	—	—	—	—	—	1
Paribas Bank of Canada	—	—	—	—	1	1	—	—	—	—	—	2
Republic National Bank of New York (Canada)	—	—	—	—	1	—	—	—	—	1	—	1
Sanwa Bank Canada	—	—	—	—	1	1	—	—	—	1	—	3
Security Pacific Bank Canada	—	—	—	—	1	1	—	—	—	1	—	3
Société Générale (Canada)	—	—	—	—	2	1	—	—	—	1	—	4
Standard Chartered Bank of Canada	—	—	—	—	1	2	—	—	1	1	—	5
State Bank of India (Canada)	—	—	—	—	—	1	—	—	—	1	—	2
The Sumitomo Bank of Canada	—	—	—	—	—	1	—	—	—	—	—	1
Swiss Bank Corporation (Canada)	—	—	—	—	1	2	—	—	2	1	—	6
Taiyo Kobe Bank (Canada)	—	—	—	—	—	1	—	—	—	—	—	1
Tokai Bank Canada	—	—	—	—	—	1	—	—	—	—	—	1
Union Bank of Switzerland (Canada)	—	—	—	—	1	1	—	—	1	—	—	3
United Overseas Bank (Canada)	—	—	—	—	—	—	—	—	—	1	—	1
Total	136	30	253	175	1,299	2,830	340	386	729	803	27	7,008

¹ Figures include sub-agencies and sub-branches in Canada for receiving deposits.

18.13 Assets and liabilities of the Federal Business Development Bank, as at March 31, 1982-86

Item		1982	1983	1984	1985	1986
Assets						
Loans and investments	\$'000,000	1,909.9	1,756.2	1,501.9	1,466.2	1,561.6
Other assets	"	48.1	151.1	114.0	99.9	33.4
Total, assets	"	1,958.0	1,907.3	1,615.9	1,566.1	1,595.0
Liabilities						
Capital and reserves	\$'000,000	163.5	207.4	199.8	202.1	206.9
Notes and debentures outstanding	"	1,772.4	1,661.1	1,399.4	1,335.4	1,369.3
Other liabilities	"	22.1	38.8	16.7	28.6	18.8
Total, liabilities	"	1,958.0	1,907.3	1,615.9	1,566.1	1,595.0
Amounts outstanding	\$'000,000	1,958.0	1,907.3	1,615.9	1,566.1	1,595.0
Customers on books	No.	35,076	31,147	24,677	20,234	17,442

18.14 Local credit unions in Canada, 1979-87

Year	Credit unions chartered	Assets \$'000	Loans granted to members \$'000
1979	3,665	26,671,497	20,231,595
1980	3,595	29,763,317	22,344,082
1981	3,448	31,657,404	23,716,793
1982	..	33,526,991	23,595,627
1983	..	37,110,568	27,565,656
1984	..	40,624,882	30,618,746
1985	3,125	44,045,039	33,768,244
1986	3,072	48,780,160	37,523,834
1987	2,975	55,060,268	43,362,991

18.15 Summary statistics of local credit unions, by province, 1984-87 (thousand dollars)

Year and province	Assets	Shares	Deposits	Loans granted to members
1984				
Newfoundland	54,982	8,600	43,326	45,163
Prince Edward Island	51,105	9,483	31,755	42,352
Nova Scotia	271,050	92,161	158,745	195,434
New Brunswick	441,728	151,560	260,623	384,303
Quebec	19,497,924	318,383	16,889,681	14,818,068
Ontario	6,441,819	846,536	5,291,914	4,713,794
Manitoba	1,587,475	1,438	1,539,611	1,239,292
Saskatchewan	3,687,220	288,104	3,119,987	2,631,024
Alberta	2,560,455	147,003	2,224,796	1,993,360
British Columbia	6,031,124	135,863	5,496,159	4,555,956
Total	40,624,882	1,999,131	35,056,597	30,618,746
1985				
Newfoundland	63,815	8,825	50,095	53,572
Prince Edward Island	58,043	9,762	37,196	47,648
Nova Scotia	301,078	99,401	178,531	221,738
New Brunswick	454,986	151,560	274,201	398,790
Quebec	21,597,693	325,588	18,775,221	16,934,869
Ontario	7,121,243	894,387	5,899,107	5,234,685
Manitoba	1,793,023	1,466	1,723,340	1,380,467
Saskatchewan	3,941,258	282,472	3,359,699	2,771,737
Alberta	2,398,649	22,461	2,418,699	1,799,459
British Columbia	6,315,251	134,988	5,793,296	4,925,279
Total	44,045,039	1,930,910	38,509,385	33,768,244

18.15 Summary statistics of local credit unions, by province, 1984-87 (thousand dollars) (concluded)

Year and province	Assets	Shares	Deposits	Loans granted to members
1986				
Newfoundland	74,591	9,121	61,557	62,990
Prince Edward Island	69,379	10,235	46,904	54,613
Nova Scotia	333,704	108,469	203,650	242,459
New Brunswick	455,316	151,560	274,201	394,690
Quebec	24,608,938	332,113	21,149,552	19,679,215
Ontario	7,744,793	905,968	6,471,373	5,798,544
Manitoba	2,182,399	1,752	2,086,649	1,664,629
Saskatchewan	4,265,078	288,241	3,697,089	2,791,501
Alberta	2,300,308	44,020	2,364,423	1,644,597
British Columbia	6,745,454	130,665	6,156,767	5,186,596
Total	48,780,160	1,982,144	42,512,165	37,523,834
1987				
Newfoundland	91,891	10,374	74,005	76,289
Prince Edward Island	83,538	11,304	55,607	71,446
Nova Scotia	376,788	120,999	233,794	270,225
New Brunswick	791,598	256,584	461,191	629,961
Quebec	28,535,701	327,167	23,972,238	23,702,795
Ontario	8,400,839	934,779	7,017,386	6,461,709
Manitoba	2,424,177	1,695	2,299,408	1,887,555
Saskatchewan	4,455,337	304,136	3,857,241	2,931,843
Alberta	2,700,728	345,755	2,426,174	1,596,650
British Columbia	7,199,671	137,306	6,530,653	5,734,518
Total	55,060,268	2,450,099	46,927,697	43,362,991

18.16 Assets, liabilities and members' equity of local credit unions in Canada, 1985-87 (million dollars)

Item	1985	1986	1987	Item	1985	1986	1987
Assets				Assets (concluded)			
Cash and demand deposits				Stabilization fund deposits	96	97	68
On hand	600	633	824	Other assets	759	715	754
In banks	159	86	72	Total, assets	44,045	48,780	55,060
In centrals	3,224	3,456	3,376	Liabilities			
Other	36	101	95	Accounts payable			
Investments				Interest	875	1,008	1,142
Term deposits	3,397	4,247	4,624	Dividends	10	12	8
Government of Canada	218	217	126	Other	94	148	134
Provincial governments	97	68	53	Loans payable			
Municipal governments	108	121	111	Centrals	1,358	1,378	2,058
Shares in centrals	380	383	393	Banks	7	17	63
Other	835	739	699	Other	70	505	760
Loans				Deposits			
Cash loans				Demand	18,001	19,526	20,779
Personal	7,736 ^r	8,276	9,206	Term	20,509	22,987	26,149
Farm	1,099	1,199	1,228	Other liabilities	232	242	320
Co-operatives and other enterprises	2,588 ^r	3,075	4,203	Members' equity			
Other	467 ^r	533	659	Share capital	1,931	1,982	2,450
Mortgage loans				Reserves	979	1,092	1,189
Dwellings	18,381	20,882	24,454	Undivided surplus	-20	-116	8
Farm	1,207	1,215	1,259	Total, liabilities and members' equity	44,045	48,780	55,060
Co-operatives and other enterprises	1,946	1,845	1,957				
Other	345	366	395				
Allowance for doubtful loans	-316	-323	-293				
Fixed assets							
Land, buildings, equipment and furniture	685	717	795				

18.17 Revenues and expenses of trust and mortgage loan companies, 1985-87 (million dollars)

Item	Trust companies			Mortgage companies		
	1985	1986	1987	1985	1986	1987
Revenues						
Interest earned	6,487	7,363	8,087	5,392	5,687	6,716
Dividends	294	327	557	54	31	23
Fees and commissions	696	863	994	19	13	15
Other revenues	231	263	292	261	178	169
Total, revenues	7,708	8,816	9,930	5,726	5,909	6,923
Expenses						
Interest	5,741	6,437	6,918	4,748	4,877	5,386
Depreciation	54	59	75	5	5	4
Amortization	6	4	4	9	13	34
Income taxes	44	41	106	91	84	184
Other expenses	1,635	2,050	2,184	625	770	1,091
Total, expenses	7,480	8,591	9,287	5,478	5,749	6,699
Net profit	228	225	643	248	160	224

18.18 Assets, liabilities and shareholders' equity of trust companies, 1985-87 (million dollars)

Item				Item			
	1985	1986	1987		1985	1986	1987
Assets				Assets (concluded)			
Cash and demand deposits				Fixed assets, held for own use or for income	528	678	372
Chartered banks				Real estate held for sale	497	412	286
Canadian currency	785	1,164	1,443	Other assets	238	503	336
Foreign currency	33	84	97	Total, assets	64,569	79,360	89,958
Branches of Canadian banks outside Canada	4	4	—	Liabilities and shareholders' equity			
Other institutions in Canada and outside Canada	25	71	28	Liabilities			
Investments in Canada				Savings deposits			
Term deposits				Chequing	7,338	8,629	8,652
Swapped deposits	724	589	392	Non-chequing	3,764	7,620	8,404
Chartered banks				For RRSP	2,733	2,568	2,341
Canadian currency	581	725	759	Other tax shelters	178	77	84
Foreign currency	296	361	423	Term deposits with original term of			
Other institutions	315	306	414	Less than one year	6,111	6,042	7,319
Short-term bills and notes				One to five years	24,256	30,452	36,207
Canada treasury bills	1,906	3,078	1,687	Over five years	175	195	168
Provincial treasury bills and notes	1,000	708	598	For RRSP purposes	11,826	14,055	16,399
Municipal notes	13	2	4	For RHOSP purposes	105	—	—
Sales finance companies' notes	99	90	54	Other tax shelters	750	723	900
Commercial paper	2,313	2,018	1,663	Bank loans			
Long-term bonds, debentures and notes				Chartered banks	150	403	214
Canada	880	1,757	1,933	Banks outside Canada			
Provincial	1,056	1,019	1,002	Accounts payable	2,088	2,769	2,591
Municipal	361	357	398	Income tax payable	7	-13	-23
Corporation	3,228	4,242	4,395	Owing to parent and affiliated Canadian companies	328	312	793
Investment in units of real estate investment trusts	27	28	8	Other notes and loans payable	966	996	817
Corporation shares	3,960	4,651	5,113	Deferred income	69	51	81
Investment in subsidiaries				Mortgages payable	41	11	17
Shares	285	463	778	Deferred income taxes	199	210	266
Advances	502	345	1,116	Other liabilities	558	787	423
Other investments in Canada	63	75	33	Shareholders' equity			
Investments outside Canada				Share capital			
Corporation shares	129	228	63	Preferred	427	585	614
Other	75	239	235	Common	793	942	1,382
Loans				Contributed surplus	673	818	1,008
Mortgages				Reserves	553	474	512
National Housing Act	8,053	9,035	9,675	Retained earnings	480	656	790
Conventional				Total, liabilities and shareholders' equity	64,569	79,360	89,958
Residential	23,251	29,923	37,154				
Non-residential	5,925	7,190	9,043				
Personal	3,583	4,842	6,057				
Collateral business loans	1,325	1,832	2,045				
Other loans	618	324	244				
Lease contracts	838	876	1,159				
Accounts receivable and accruals	1,052	1,143	953				

18.19 Assets, liabilities and shareholders' equity of mortgage loan companies, 1985-87 (million dollars)

Item	1985	1986	1987	Item	1985	1986	1987
Assets				Liabilities			
Cash and demand deposits				Demand deposits			
Chartered banks				Chequing	966	4,678	13,250
Canadian currency	224	240	257	Non-chequing	407	1,182	4,644
Foreign currency	54	1	1	For RRSP	1	44	83
Other institutions in Canada and outside Canada	39	31	1	For RHOSP	—	—	—
Investments in Canada				Other tax shelters	—	—	—
Term deposits				Term deposits with original term of			
Chartered banks				Less than one year	4,402	3,202	2,303
Canadian currency	526	248	628	One to five years	26,538 ^f	30,486	35,852
Foreign currency (including swapped deposits)	105	2	12	Over five years	773	724	12
Other institutions	13	9	32	For RRSP	92	131	193
Short-term bills and notes				For RHOSP	1	..	..
Canada treasury bills	1,317	1,897	3,017	Other tax shelters	—	—	8
Provincial treasury bills and notes	21	16	296	Bank loans			
Municipal notes	—	—	—	Chartered banks			
Sales finance companies' notes	--	--	9	Canadian currency	126	35	21
Commercial paper	180	44	112	Foreign currency	—	—	1
Long-term bonds, debentures and notes				Banks outside Canada	—	—	—
Canada	684	710	637	Other notes and loans payable			
Provincial	99	62	81	Promissory notes			
Municipal	16	11	--	Less than one year	2,815	2,174	1,064
Corporation	1,415	807	374	One year or more	1,865	2,334	1,696
Investment in units of real estate investment trusts	8	—	—	Other	183	329	1,633
Corporation shares	421	361	357	Accounts payable and accruals	1,439	1,438	1,689
Investment in subsidiaries				Income taxes	-7	—	25
Shares	571	197	234	Owing to parent and affiliated companies			
Advances	248	344	56	In Canada	9,307 ^f	7,527	10,553
Other investments in Canada	1	7	1	Outside Canada	—	—	164
Investments outside Canada				Debentures issued under trust indenture	438	567	561
Corporation shares	23	16	—	Deferred income	-4	-12	82
Other	24	9	1	Mortgages payable	8	8	—
Loans				Deferred income taxes	152	140	282
Mortgages				Other liabilities	131	202	140
National Housing Act	13,144	13,202	14,793	Shareholders' equity			
Conventional				Share capital			
Residential	26,630	31,683	44,514	Preferred	509	489	583
Non-residential	2,778	3,982	5,011	Common	1,246	1,352	1,722
Personal	1,992	2,005	4,143	Contributed surplus	321	194	484
Collateral business loans	804	995	1,831	Reserves	130	145	95
Other loans	52	61	37	Retained earnings	558	415	323
Lease contracts	147	4	10				
Accounts receivable and accruals	342	315	787	Total, liabilities and shareholders' equity	52,396	57,784	77,460
Fixed assets	64	55	48				
Real estate held for sale	247	181	42				
Other assets	205	290	140				
Total, assets	52,396	57,784	77,460				

18.20 Estimated liabilities¹ of bankruptcies and insolvencies, 1984-87 (thousand dollars)

Province or territory	1984	1985	1986	1987
Newfoundland	12,988.5	5,852.0	4,145.0	9,125.3
Nova Scotia	20,999.5	18,810.0	27,250.3	32,347.5
Prince Edward Island	4,001.5	1,018.7	1,626.0	4,876.0
New Brunswick	10,139.0	11,919.0	9,838.0	7,615.9
Quebec	641,732.1	473,949.6	451,937.9	458,776.3
Ontario	488,238.0	425,921.7	370,711.0	362,209.9
Manitoba	43,232.5	58,968.0	32,240.6	32,063.4
Saskatchewan	38,520.5	54,036.5	59,160.6	55,323.1
Alberta	586,200.0	500,394.5	459,858.1	449,505.7
British Columbia	617,734.5	465,829.4	526,336.1	365,496.1
Yukon	132.0	1,785.0	676.0	191.6
Northwest Territories	805.0	1,742.0	657.0	3,707.5
Canada	2,464,723.1	2,020,226.4	1,944,436.6	1,781,238.3

¹ Estimated by debtors and therefore to be accepted with reservations.

18.21 Bankruptcies and insolvencies, by industry and region, 1984-87

Year and industry	Atlantic provinces	Quebec	Ontario	Prairie provinces	British Columbia	Total ¹	Total liabilities ^{1,2} \$'000
1984							
Primary industries	93	219	175	217	150	854	223,142
Manufacturing							
Food and beverages	4	29	27	14	4	78	23,977
Textiles	—	10	8	2	2	22	10,980
Clothing	—	33	8	3	—	44	12,634
Wood	2	74	40	17	52	186	58,144
Paper and allied industries	2	42	40	12	8	104	24,178
Primary and fabricated metal, machinery, transportation, equipment, electrical products and non-metallic mineral products	2	72	82	31	48	236	95,431
Chemical	—	8	8	5	2	23	12,403
Other manufacturing industries	11	33	36	6	18	104	45,042
Construction							
General contractors	5	41	88	133	132	399	139,147
Special trade contractors	58	355	404	197	131	191	191,497
Transportation, communications and other utilities	29	122	152	164	105	572	107,714
Trade							
Food	28	226	81	50	48	433	86,962
General merchandise	8	13	62	17	10	110	11,577
Automotive products and machinery	34	242	213	140	122	751	129,245
Apparel and shoes	11	96	64	32	29	232	36,350
Hardware	7	19	12	13	10	61	13,275
Household furniture and appliances	3	41	63	40	45	192	31,451
Drugs	1	9	5	5	5	25	3,580
Other trades	28	447	187	116	86	865	160,917
Finance, insurance and real estate	19	119	133	171	179	622	531,759
Services							
Education, health and welfare	6	44	52	14	15	131	25,010
Recreational	15	60	67	32	23	197	48,070
Business	14	138	149	102	75	478	135,148
Personal	3	73	46	27	21	170	17,787
Other services	41	769	376	195	157	1,538	289,073
Other	—	3	1	—	—	4	239
Total, all industries	424	3,337	2,579	1,755	1,477	9,578	1,896,239
1985							
Primary industries	93	184	167	242	104	791	174,758
Manufacturing							
Food and beverages	1	29	23	12	8	73	26,493
Textiles	—	15	17	—	1	33	27,524
Clothing	1	20	10	4	5	40	22,041
Wood	1	61	28	18	36	144	40,180
Paper and allied industries	2	40	38	17	18	115	15,421
Primary and fabricated metal, machinery, transportation, equipment, electrical products and non-metallic mineral products	6	54	62	47	34	204	107,828
Chemical	—	3	5	2	—	10	2,599
Other manufacturing industries	14	27	20	2	12	75	36,011
Construction							
General contractors	7	25	103	116	130	382	120,308
Special trade contractors	54	320	419	202	150	1,146	162,204
Transportation, communications and other utilities	30	104	142	144	77	499	58,692
Trade							
Food	6	203	93	55	49	407	43,868
General merchandise	10	21	38	7	7	83	13,421
Automotive products and machinery	29	202	158	148	94	632	85,395
Apparel and shoes	6	136	80	30	20	273	48,520
Hardware	2	12	11	11	3	39	5,569
Household furniture and appliances	5	28	60	52	44	189	47,911
Drugs	1	9	3	4	3	20	3,021
Other trades	32	410	135	106	102	787	121,919
Finance, insurance and real estate	15	59	92	173	134	473	431,716
Services							
Education, health and welfare	2	47	51	13	23	136	28,776
Recreational	18	60	52	45	28	203	41,452
Business	16	126	148	79	69	438	104,736
Personal	6	62	37	36	34	175	13,820
Other services	50	546	324	218	146	1,288	186,481
Other	3	4	1	—	—	8	1,343
Total, all industries	410	2,807	2,317	1,783	1,331	8,663	1,555,131

18.21 Bankruptcies and insolvencies, by industry and region, 1984-87 (concluded)

Year and industry	Atlantic provinces	Quebec	Ontario	Prairie provinces	British Columbia	Total ¹	Total liabilities ^{1,2} \$'000
1986							
Primary industries	66	140	130	249	112	699	188,861
Manufacturing							
Food and beverages	2	27	11	14	13	67	31,154
Textiles	1	7	6	3	2	19	2,449
Clothing	—	20	9	2	3	34	7,045
Wood	6	47	26	26	29	134	38,723
Paper and allied industries	4	38	33	18	14	107	12,567
Primary and fabricated metal, machinery, transportation, equipment, electrical products and non-metallic mineral products	2	49	53	29	44	177	82,459
Chemical	3	3	6	4	3	19	2,692
Other manufacturing industries	11	26	25	9	16	87	25,766
Construction							
General contractors	5	28	74	135	122	366	126,026
Special trade contractors	58	330	369	200	129	1,090	178,959
Transportation, communications and other utilities	18	136	126	152	111	544	65,605
Trade							
Food	12	231	88	67	60	458	58,518
General merchandise	11	15	24	10	26	86	5,594
Automotive products and machinery	26	184	163	168	106	650	100,148
Apparel and shoes	7	110	58	31	18	224	26,246
Hardware	4	15	13	12	8	50	6,944
Household furniture and appliances	6	40	47	54	29	176	19,860
Drugs	2	13	10	4	5	34	3,585
Other trades	14	392	147	97	89	740	149,504
Finance, insurance and real estate	10	79	65	137	128	419	402,005
Services							
Education, health and welfare	7	46	48	11	30	142	25,397
Recreational	9	46	48	32	40	175	43,334
Business	15	119	133	93	100	461	119,136
Personal	12	110	55	28	27	232	21,335
Other services	44	574	291	215	180	1,306	197,894
Other	1	1	2	1	1	6	1,706
Total, all industries	356	2,826	2,060	1,801	1,445	8,502	1,944,436
1987							
Primary industries	27	111	63	250	100	551	141,062
Manufacturing							
Food and beverages	—	13	15	16	15	59	9,035
Textiles	—	4	2	—	1	7	1,633
Clothing	5	30	8	4	5	52	7,050
Wood	5	61	24	19	33	142	40,925
Paper and allied industries	2	28	23	13	6	72	14,837
Primary and fabricated metal, machinery, transportation, equipment, electrical products and non-metallic mineral products	2	52	65	33	33	185	73,544
Chemical	2	4	3	5	10	24	5,684
Other manufacturing industries	—	27	26	14	14	81	32,957
Construction							
General contractors	10	22	97	77	99	306	81,805
Special trade contractors	47	299	229	161	101	839	110,030
Transportation, communications and other utilities	27	125	93	160	100	506	74,086
Trade							
Food	14	200	68	44	41	367	71,467
General merchandise	7	15	33	11	16	83	13,782
Automotive products and machinery	25	152	129	146	96	549	120,254
Apparel and shoes	8	135	82	29	20	274	36,091
Hardware	1	13	9	13	2	38	6,604
Household furniture and appliances	12	53	47	42	28	182	35,834
Drugs	—	3	8	8	6	25	5,465
Other trades	22	453	150	102	74	801	125,247
Finance, insurance and real estate	9	46	44	86	92	278	394,724
Services							
Education, health and welfare	2	41	25	14	24	106	16,860
Recreational	17	42	41	30	20	151	27,082
Business	17	132	92	104	102	448	111,073
Personal	17	137	48	33	37	272	21,043
Other services	54	496	288	221	175	1,234	195,647
Other	1	—	5	3	—	27	7,421
Total, all industries	333	2,694	1,717	1,638	1,268	7,659	1,781,238

¹ Includes Yukon and Northwest Territories.² Totals may not add due to rounding.

18.22 Total consumer bankruptcies reported, calendar years, 1984-87

Year and province or territory	Total estates	Total assets \$	Total liabilities \$	Total deficiency \$
1984				
Newfoundland	277	1,551,150	6,477,750	4,926,600
Prince Edward Island	33	250,700	2,503,500	2,252,800
Nova Scotia	717	4,144,550	23,964,000	19,819,450
New Brunswick	297	1,784,800	7,496,000	5,711,200
Quebec	6,269	46,834,400	231,880,000	185,045,600
Ontario	8,209	73,770,200	332,816,650	259,046,450
Manitoba	661	9,171,200	31,654,500	22,483,300
Saskatchewan	529	12,910,950	27,434,500	14,523,550
Alberta	2,373	75,463,950	297,088,000	221,624,050
British Columbia	2,648	72,579,800	281,430,500	208,850,700
Yukon	2	54,500	126,000	71,500
Northwest Territories	7	104,000	469,500	365,500
Canada	22,022	298,620,200	1,243,340,900	944,720,700
1985				
Newfoundland	238	1,727,550	5,482,000	3,754,450
Prince Edward Island	31	123,700	610,000	486,300
Nova Scotia	660	3,600,200	12,600,000	8,999,800
New Brunswick	205	1,572,500	7,380,500	5,808,000
Quebec	5,684	42,268,400	218,371,300	176,102,900
Ontario	6,828	49,208,800	249,761,300	200,552,500
Manitoba	658	8,284,350	23,107,350	14,823,000
Saskatchewan	454	12,274,600	26,686,500	14,411,900
Alberta	2,318	65,387,950	228,045,500	162,657,550
British Columbia	2,666	56,337,350	177,739,750	121,402,400
Yukon	4	318,150	555,000	236,850
Northwest Territories	6	65,500	174,500	109,000
Canada	19,752	241,169,050	950,513,700	709,344,650
1986				
Newfoundland	246	1,526,500	4,448,000	2,921,500
Prince Edward Island	55	246,450	895,500	649,050
Nova Scotia	767	4,874,550	16,025,500	11,150,950
New Brunswick	249	2,229,550	8,260,000	6,030,450
Quebec	6,497	40,756,600	225,086,600	184,330,000
Ontario	7,580	50,682,600	239,792,300	189,109,700
Manitoba	754	7,383,050	20,248,050	12,865,000
Saskatchewan	562	17,830,000	33,094,000	15,264,000
Alberta	2,262	60,529,450	154,286,500	93,757,050
British Columbia	2,781	52,007,600	210,567,550	158,559,950
Yukon	7	118,150	247,500	129,350
Northwest Territories	5	20,400	254,400	234,000
Canada	21,765	238,204,900	913,205,900	675,001,000
1987				
Newfoundland	253	1,054,162	3,583,077	2,528,915
Prince Edward Island	32	80,078	961,315	881,237
Nova Scotia	963	5,463,537	16,080,701	10,617,164
New Brunswick	221	1,579,076	9,191,288	7,612,212
Quebec	7,730	27,369,802	148,867,207	121,497,405
Ontario	7,981	33,014,557	173,839,581	140,825,024
Manitoba	994	5,853,206	16,323,416	10,470,210
Saskatchewan	631	13,870,145	30,941,337	17,071,192
Alberta	2,675	41,875,379	76,827,095	34,951,716
British Columbia	2,886	26,506,165	89,294,091	62,787,926
Yukon	9	91,335	261,920	170,585
Northwest Territories	9	56,000	124,558	68,558
Canada	24,384	156,813,442	566,295,586	409,482,144

18.23 Summary statistics of estates closed during 1984-87, under the Bankruptcy Act

Year and item		Atlantic provinces	Quebec	Ontario	Prairie provinces	British Columbia	Total
1984							
Bankrupt estates							
Estates closed	No.	2,144	7,368	12,466	5,934	2,855	30,737
Assets as declared by debtors	\$'000	44,144.1	238,547.4	207,281.5	169,573.2	94,126.7	753,672.8
Liabilities as declared by debtors	"	122,115.8	679,804.6	783,271.0	565,270.9	353,949.4	2,504,411.6
Deficit	"	77,971.8	441,257.2	575,989.5	395,697.7	259,822.7	1,750,738.8
Realizations by trustees	"	6,446.6	49,754.0	31,702.4	20,580.9	9,119.3	117,603.0
Administrative expenses	"	3,083.9	28,255.5	16,555.1	10,299.9	5,163.1	63,357.3
Dividends	"	3,362.7	21,498.5	15,147.3	10,281.0	3,956.2	54,245.7
1985							
Bankrupt estates							
Estates closed	No.	1,520	10,402	14,264	5,677	3,760	35,623
Assets as declared by debtors	\$'000	19,150.2	209,171.6	205,098.4	234,856.8	139,849.4	808,126.4
Liabilities as declared by debtors	"	73,792.3	831,630.0	963,096.3	893,339.3	647,796.9	3,409,654.8
Deficit	"	54,642.1	622,458.4	757,997.9	658,482.5	507,947.5	2,601,528.4
Realizations by trustees	"	4,458.5	62,336.3	42,922.0	31,187.4	10,275.0	151,179.0
Administrative expenses	"	2,648.8	35,490.0	27,847.5	13,326.3	6,180.3	85,492.8
Dividends	"	1,809.7	26,846.3	15,074.5	17,861.1	4,094.7	65,686.2
1986							
Bankrupt estates							
Estates closed	No.	1,157	10,009	9,227	5,712	3,374	29,479
Assets as declared by debtors	\$'000	37,203.7	247,321.7	143,418.7	198,935.4	122,786.8	749,866.3
Liabilities as declared by debtors	"	71,126.3	826,788.6	648,810.8	945,917.1	570,751.7	3,063,394.5
Deficit	"	33,922.6	579,466.9	505,392.1	746,981.7	447,765.0	2,313,528.3
Realizations by trustees	"	16,385.5	112,934.5	35,018.9	36,461.3	27,535.7	228,335.8
Administrative expenses	"	8,934.3	95,558.3	20,375.9	22,962.5	20,441.8	168,272.7
Dividends	"	7,451.3	17,376.3	14,643.0	13,498.8	7,093.9	60,063.2
1987							
Bankrupt estates							
Estates closed	No.	1,322	7,644	7,094	4,385	3,271	23,716
Assets as declared by debtors	\$'000	19,137.7	183,659.7	102,614.5	192,946.3	129,174.8	627,533.1
Liabilities as declared by debtors	"	66,268.9	656,057.5	494,903.0	722,921.3	570,520.3	2,510,671.0
Deficit	"	47,131.2	472,397.8	392,288.5	529,974.9	441,345.5	1,883,137.9
Realizations by trustees	"	3,756.4	49,828.3	26,485.0	23,462.5	14,986.0	118,518.2
Administrative expenses	"	2,147.0	35,453.5	14,874.7	11,543.7	7,613.3	71,632.2
Dividends	"	1,609.4	14,374.8	11,610.4	11,918.7	7,372.7	46,886.0

18.24 Life insurance effected and in force in Canada by insurance companies under federal registration, selected years, 1880-1987 (million dollars)

Year	New insurance effected during year	Amounts in force December 31			Total
		Canadian	British	Foreign	
1880	14	38	20	34	91
1900	68	267	39	124	431
1920	630	1,664	77	916	2,657
1940	590	4,609	146	2,221	6,975
1960	5,693	30,418	1,555	12,676	44,649
1970	12,915	76,775	5,727	28,615	111,116
1975	32,526	151,974	10,476	45,629	208,079
1980	57,332	309,454	20,465	73,128	403,047
1981	70,818	358,087	24,182	83,299	465,568
1982	85,468	394,822	27,348	90,332	512,502
1983	94,299	445,858	27,013	95,565	568,436
1984	98,103	496,595	29,353	105,019	630,967
1985	108,226	551,321	31,104	106,558	688,983
1986	122,730	611,870	29,265	121,892	763,027
1987	124,905	671,621	31,568	124,842	828,031

18.25 Amounts of ordinary¹ and group life insurance policies effected and in force in Canada by federally registered companies, 1984-87 (million dollars)

Policies	1984			1985		
	Canadian	British	Foreign	Canadian	British	Foreign
Effected during year						
Ordinary ¹	45,079	4,743	13,728	52,300	4,727	12,445
Group	27,980	1,356	5,217	31,810	1,818	5,126
In force December 31						
Ordinary ¹	195,842	20,443	55,111	227,353	22,115	55,301
Group	300,753	8,910	49,908	323,968	8,989	51,251
	1986			1987		
Effected during year						
Ordinary ¹	55,854	3,621	13,420	59,640	5,990	14,429
Group	43,281	1,084	5,470	36,382	1,139	7,325
In force December 31						
Ordinary ¹	256,289	19,984	63,471	284,931	22,426	66,711
Group	355,581	9,281	58,421	386,690	9,142	58,131

¹ Includes industrial policies.

18.26 Life insurance premiums (direct written), by province, 1984-87 (million dollars)

Province or territory	1984				1985			
	Life			Accident and sickness total	Life			Accident and sickness total
	Ordinary ¹	Group	Total		Ordinary ¹	Group	Total	
Newfoundland	31	17	48	41	34	19	53	44
Prince Edward Island	10	4	14	6	11	4	15	7
Nova Scotia	83	36	119	68	92	42	134	74
New Brunswick	63	22	85	48	70	27	97	54
Quebec	710	313	1,023	542	756	343	1,099	582
Ontario	1,039	519	1,558	1,241	1,137	547	1,684	1,357
Manitoba	105	51	156	82	113	56	169	87
Saskatchewan	87	46	133	53	95	48	143	58
Alberta	267	123	390	214	289	133	422	238
British Columbia	252	125	377	239	280	136	416	262
Yukon and Northwest Territories	4	1	5	3	4	2	6	4
Miscellaneous	22	6	28	-1	24	5	29	-3
Total	2,673	1,263	3,936	2,536	2,905	1,362	4,267	2,764
	1986				1987			
Newfoundland	38	23	61	48	42	23	65	53
Prince Edward Island	12	5	17	7	14	5	19	8
Nova Scotia	99	43	142	81	108	45	153	89
New Brunswick	76	47	123	57	83	57	140	65
Quebec	810	365	1,175	579	854	387	1,241	588
Ontario	1,273	596	1,869	1,452	1,443	672	2,115	1,654
Manitoba	124	60	184	91	135	64	199	101
Saskatchewan	105	50	155	63	115	51	166	71
Alberta	318	136	454	261	356	140	496	285
British Columbia	306	143	449	279	339	147	486	304
Yukon and Northwest Territories	5	1	6	6	5	2	7	6
Miscellaneous	31	4	35	10	20	16	36	-2
Total	3,197	1,473	4,670	2,934	3,514	1,609	5,123	3,222

¹ Includes industrial policies.

18.27 Major assets and liabilities of federally registered life insurance companies, as at December 31, 1984-87 (million dollars)

Assets and liabilities	Life insurance					
	1984			1985		
	Canadian ¹	British ²	Foreign ²	Canadian ¹	British ²	Foreign ²
Assets						
Bonds	26,058	1,863	3,828	30,407	2,165	4,383
Stocks	4,567	402	234	5,313	474	316
Mortgages ³	20,761	1,392	1,777	24,611	1,550	1,741
Real estate and ground rents	3,418	335	265	3,618	337	263
Policy loans	3,915	148	415	3,942	146	427
Other assets	4,291	221	341	4,369	293	357
Segregated	9,096	1,463	273	11,298	1,633	331
Total⁴	72,106	5,824	7,133	83,558	6,598	7,818
Liabilities						
Actuarial reserves	47,816	3,729	4,654	55,011	4,205	5,060
Outstanding claims	501	25	72	560	23	67
Amounts on deposit	2,869	21	317	3,125	25	350
Other liabilities	7,655 ⁵	151	452	8,730 ⁶	161	369
Segregated	9,074	1,457	206	11,276	1,619	262
Total	67,915	5,383	5,701	78,702	6,033	6,108
Surplus or excess ⁷	3,915	441	1,432	4,384	565	1,710
Capital stock	276	—	—	472	—	—
	1986			1987		
Assets						
Bonds	33,582	2,341	4,143	38,033	2,399	4,217
Stocks	6,195	488	397	6,939	580	552
Mortgages ³	29,694	1,880	1,961	33,867	2,128	2,193
Real estate and ground rents	3,992	344	239	4,535	421	243
Policy loans	4,056	144	437	4,275	143	444
Other assets	4,847	277	405	5,263	370	437
Segregated	13,748	1,587	460	14,916	1,438	434
Total⁴	96,114	7,061	8,042	107,828	7,479	8,520
Liabilities						
Actuarial reserves	63,119	4,577	5,439	72,101	5,007	5,848
Outstanding claims	601	23	80	684	25	75
Amounts on deposit	3,431	27	383	3,747	28	419
Other liabilities	10,087 ⁸	194	469	10,922 ⁹	189	524
Segregated	13,721	1,577	328	14,883	1,425	331
Total	90,959	6,398	6,699	102,337	6,674	7,197
Surplus or excess ⁷	4,577	663	1,343	4,836	805	1,323
Capital stock	578	—	—	655	—	—
	Accident and sickness insurance					
	1984			1985		
Assets						
Bonds	1,897	59	694	2,169	94	727
Stocks	197	4	—	253	4	1
Mortgages ³	1,130	7	3	1,310	6	22
Real estate and ground rents	6	—	—	6	—	—
Policy loans	...	...	...	...	...	...
Other assets	755	10	139	630	19	151
Segregated	...	...	...	...	...	...
Total⁴	3,985	80	836	4,368	123	901
Liabilities						
Actuarial reserves	2,435	64	447	2,825	93	489
Outstanding claims	463	1	43	499	2	45
Amounts on deposit	172	—	4	188	—	4
Other liabilities	851	4	107	665	4	84
Segregated	...	...	...	...	...	...
Total	3,921	69	601	4,177	99	622

18.27 Major assets and liabilities of federally registered life insurance companies, as at December 31, 1984-87 (million dollars) (concluded)

Assets and liabilities	Accident and sickness insurance (concluded)					
	1984			1985		
	Canadian ¹	British ²	Foreign ²	Canadian ¹	British ²	Foreign ²
Surplus or excess ⁷	53	11	235	180	24	279
Capital stock	11	...	...	11	...	...
	1986			1987		
Assets						
Bonds	2,445	104	814	2,672	118	900
Stocks	304	4	2	283	5	2
Mortgages ³	1,523	6	25	1,790	6	57
Real estate and ground rents	6	—	—	19	—	—
Policy loans	—	—	—	—	—	—
Other assets	677	26	158	662	29	165
Segregated	—	—	—	—	—	—
Total ⁴	4,955	140	999	5,426	158	1,124
Liabilities						
Actuarial reserves	3,310	97	549	3,661	124	599
Outstanding claims	510	2	45	541	2	48
Amounts on deposit	209	—	4	264	—	4
Other liabilities	711	7	91	779	7	113
Segregated	—	—	—	—	—	—
Total	4,740	106	689	5,245	133	764
Surplus or excess ⁷	201	34	310	167	25	360
Capital stock	14	—	—	14	—	—

¹ Assets at book values; in and out of Canada (segregated funds at market values).

² Assets at book values in Canada only.

³ Mortgages include agreements of sale.

⁴ Includes assets under control of Chief Agent in Canada (British and Foreign only).

⁵ Includes \$3,440 million appropriated surplus (reserve requested by the Office of the Superintendent of Financial Institutions Canada, \$1,519 million and \$1,921 million other reserve) previously included in liabilities (Canadian only).

⁶ Includes \$3,779 million appropriated surplus (reserve requested by the Office of the Superintendent of Financial Institutions Canada, \$1,634 million and \$2,145 million other reserve) previously included in liabilities (Canadian only).

⁷ Excess of assets over liabilities in Canada for British and foreign companies; for such companies, "capital stock" is not applicable in Canada.

⁸ Includes \$4,179 million appropriated surplus (reserve requested by the Office of the Superintendent of Financial Institutions Canada, \$2,293 million and \$1,886 million other reserve) previously included in liabilities (Canadian only).

⁹ Includes \$4,596 million appropriated surplus (reserve requested by the Office of the Superintendent of Financial Institutions Canada, \$2,841 million and \$1,755 million other reserve) previously included in liabilities (Canadian only).

18.28 Major items of income and expenditure of federally registered life insurance companies, 1985-87 (million dollars)

Income and expenditure	1985 Life			1986 Life			1987 Life		
	Canadian	British ¹	Foreign ¹	Canadian	British ¹	Foreign ¹	Canadian	British ¹	Foreign ¹
Income									
Insurance premiums and annuity considerations	14,134 ²	888	1,059	16,217 ²	1,320	1,183	19,771 ²	1,176	1,240
Investment income — regular funds	7,256	551	753	8,430	614	778	8,909	657	815
Net investment gain — segregated funds	2,010	262	50	1,414	214	38	910	5	6
Other items	249	136	133	455	145	123	613	155	163
Total income	23,649	1,837	1,995	26,516	2,293	2,122	30,203	1,993	2,224
Selected expenditure									
Claims incurred	8,649	472	603	9,880	1,135	723	11,832	924	771
Dividends to policyholders	1,021	62	223	1,143	61	236	1,282	65	242
Commissions and general expenses	2,642	182	317	2,924	184	376	3,187	222	395
Taxes, licences and fees	115 ³	18	18	135 ³	18	28	155 ³	23	30

18.28 Major items of income and expenditure of federally registered life insurance companies, 1985-87 (million dollars) (concluded)

Income and expenditure	1985 Accident and sickness			1986 Accident and sickness			1987 Accident and sickness		
	Canadian	British ¹	Foreign ¹	Canadian	British ¹	Foreign ¹	Canadian	British ¹	Foreign ¹
Income									
Insurance premiums and annuity considerations	3,042	41	450	3,260	45	478	3,444	57	510
Investment income — regular funds	482	10	85	505	12	93	521	13	108
Net investment gain — segregated funds	—	—	—	—	—	—	—	—	—
Other items	16	3	9	13	3	19	17	1	25
Total income	3,540	54	544	3,778	60	590	3,982	71	643
Selected expenditure									
Claims incurred	2,383	24	304	2,617	29	339	2,799	37	363
Dividends to policyholders	118	—	8	55	—	6	49	—	8
Commissions and general expenses	457	12	131	518	11	140	567	12	154
Taxes, licences and fees	66	1	10	74	1	12	74	1	11

¹ Business in Canada only.² Worldwide business of which \$5,636 million in 1985, \$7,131 million in 1986 and \$8,730 million in 1987 was applicable to out-of-Canada business.³ Excludes income taxes.
18.29 Property and casualty net premiums written and net claims incurred, by class of insurance and by incorporation of company, 1984-87 (million dollars)

Year and insurance class	Net premiums written				Net claims incurred ¹
	Canadian	British	Foreign	Total	
1984					
Property ²	1,699	263	627	2,589	1,618
Automobile	2,332	189	740	3,261	2,806
Liability	288	42	156	486	492
Accident and sickness	158	57	27	242	180
Other casualty ³	145	42	83	270	275
Marine	36	6	16	58	39
Total	4,658	599	1,649	6,906	5,410
1985					
Property ²	1,853	266	742	2,861	1,861
Automobile	2,611	202	847	3,660	3,348
Liability	416	60	253	729	562
Accident and sickness	182	55	31	268	206
Other casualty ³	166	41	108	315	195
Marine	40	7	22	69	33
Total	5,268	631	2,003	7,902	6,205
1986					
Property ²	2,184	298	778	3,260	1,808
Automobile	3,255	222	1,030	4,507	3,773
Liability	648	98	405	1,151	765
Accident and sickness	145	66	28	239	154
Other casualty ³	221	49	95	365	141
Marine	38	7	24	69	40
Total	6,491	740	2,360	9,591	6,681

18.29 Property and casualty net premiums written and net claims incurred, by class of insurance and by incorporation of company, 1984-87 (million dollars) (concluded)

Year and insurance class	Net premiums written				Net claims incurred ¹
	Canadian	British	Foreign	Total	
1987					
Property ²	2,358	305	830	3,493	2,091
Automobile	3,615	234	1,132	4,981	4,323
Liability	704	91	435	1,230	876
Accident and sickness	142	76	2	220	140
Other casualty ³	266	64	108	438	151
Marine	39	10	27	76	46
Total	7,124	780	2,534	10,438	7,627

¹ Includes adjustment expenses.

² Includes fire, personal property, real property, windstorm, earthquake, inland transportation, livestock, theft, forgery, plate glass.

³ Includes hail, fidelity, surety, boiler and machinery, aircraft, credit, legal expenses, mortgage.

18.30 Property and casualty direct premiums written and claims incurred, by province and by category of company, 1984-86 (million dollars)

Year and province or territory	Premiums written			Claims incurred
	Companies federally registered ¹	Companies provincially licensed	Total	
1984				
Newfoundland	86	23	109	80
Prince Edward Island	31	4	35	24
Nova Scotia	245	—	245	161
New Brunswick	206	22	228	164
Quebec	1,668	1,028	2,696	2,098
Ontario	3,222	446	3,668	3,042
Manitoba	148	243	391	327
Saskatchewan	141	166	307	222
Alberta	937	142	1,079	892
British Columbia	488	808	1,296	1,143
Yukon and Northwest Territories	27	2	29	20
Canada	7,199	2,884	10,083	8,173
1985				
Newfoundland	100	24	124	80
Prince Edward Island	35	4	39	31
Nova Scotia	271	1	272	201
New Brunswick	243	11	254	167
Quebec	1,830	1,074	2,904	2,273
Ontario	3,745	542	4,287	3,617
Manitoba	164	260	424	358
Saskatchewan	153	178	331	212
Alberta	1,009	162	1,171	988
British Columbia	593	810	1,403	1,208
Yukon and Northwest Territories	31	2	33	38
Canada	8,174	3,068	11,242	9,173
1986				
Newfoundland	114	28	142	87
Prince Edward Island	42	5	47	29
Nova Scotia	327	1	328	210
New Brunswick	285	16	301	191
Quebec	2,170	1,292	3,462	2,573
Ontario	4,853	650	5,503	3,751
Manitoba	203	291	494	439
Saskatchewan	164	194	358	265
Alberta	1,126	187	1,313	883
British Columbia	716	823	1,539	1,245
Yukon and Northwest Territories	35	2	37	30
Canada	10,035	3,489	13,524	9,703

¹ Includes Lloyd's, now federally registered.

18.31 Major assets and liabilities of federally registered property and casualty insurance companies, 1984-87 (million dollars)

Assets and liabilities	1984			1985		
	Canadian ¹	British ²	Foreign ²	Canadian ¹	British ²	Foreign ²
Assets						
Bonds	4,182	686	2,981	4,837	643	3,334
Stocks	1,824	90	172	1,871	98	211
Amounts due from agents and premiums receivable	624	61	316	805	69	403
Other	2,906	212	872	3,171	301	946
Total	9,536	1,049³	4,341³	10,684	1,111	4,894
Liabilities						
Unearned premiums	2,248	233	793	2,584	236	956
Unpaid claims	3,908	398	1,492	4,421	434	1,796
Other	845	62 ⁴	243 ⁴	981	73 ⁴	253 ⁴
Total	7,001	693	2,528	7,986	743	3,005
Statutory reserves (including general and contingency reserves)	415	22	350	393	25	229
Surplus or excess ⁵	1,602	334 ⁶	1,463 ⁶	1,741	343 ⁶	1,660 ⁴
Capital stock and amounts transferred	518	...	...	564	...	...
	1986			1987		
	Canadian ¹	British ²	Foreign ²	Canadian ¹	British ²	Foreign ²
Assets						
Bonds	5,684	770	3,997	6,575	926	4,628
Stocks	2,298	117	246	2,787	156	329
Amounts due from agents and premiums receivable	1,018	82	426	1,136	84	416
Other	3,818	319	1,249	4,289	357	1,520
Total	12,818	1,288³	5,918³	14,787	1,523	6,893
Liabilities						
Unearned premiums	3,145	270	1,044	3,461	277	1,098
Unpaid claims	5,095	408	2,243	6,008	585	2,822
Other	1,136	78 ⁴	451 ⁴	1,262	77 ⁴	455 ⁴
Total	9,376	756	3,738	10,731	939	4,375
Statutory reserves (including general and contingency reserves)	418	20	207	497	33	230
Surplus or excess ⁵	2,182	512	1,973	2,618	551	2,288
Capital stock and amounts transferred	842	...	...	941	...	...

¹ Business in and out of Canada, investments on book value basis.² Business in Canada only, investments on book value basis.³ Assets for British and Foreign at book value.⁴ Marine liabilities (British, \$29 million in 1984, \$39 million in 1985, \$40 million in 1986 and \$44 million in 1987; Foreign, \$21 million in 1984, \$25 million in 1985, \$32 million in 1986 and \$37 million in 1987) are included in "other" liabilities.⁵ Excess of assets over liabilities in Canada for British and Foreign companies; for such companies, "capital stock" is not applicable in Canada.⁶ This amount is the Head Office Account in 1984-87.

18.32 Property and casualty insurance, underwriting results in Canada, 1984-87, with totals for 1980-87 (million dollars)

Registered companies	Underwriting revenue	Claims ¹ incurred	Expenses incurred	Dividends to policyholders	Underwriting income
1984					
Canadian ²	4,603.6	3,723.2	1,580.7	6.2	-706.5
British	586.6	407.8	209.1	—	-30.3
Foreign	1,586.4	1,265.7	528.3	2.6	-210.2

18.32 Property and casualty insurance, underwriting results in Canada, 1984-87, with totals for 1980-87 (million dollars) (concluded)

Registered companies	Underwriting revenue	Claims ¹ incurred	Expenses incurred	Dividends to policyholders	Underwriting income
1985					
Canadian ²	4,950.8	4,155.2	1,665.0	9.6	-879.0
British	612.4	454.5	226.9	—	-69.0
Foreign	1,805.3	1,586.3	568.2	5.3	-354.5
1986					
Canadian ²	5,935.6	4,555.9	1,882.7	8.8	-511.6
British	698.0	383.3	238.6	—	76.0
Foreign	2,239.8	1,725.0	635.1	1.5	-121.9
1987					
Canadian ²	6,849.2	5,134.6	2,118.7	10.5	-414.5
British	763.9	544.6	282.4	—	-63.1
Foreign	2,476.5	1,923.9	694.4	5.7	-147.5
Total, 1987	10,089.6	7,603.1	3,095.5	16.2	-625.1
1986	8,873.4	6,664.2	2,756.4	10.3	-557.5
1985	7,368.5	6,196.0	2,460.1	14.9	-1,302.5
1984	6,776.6	5,396.7	2,318.1	8.8	-947.0
1983	6,481.4	4,652.6	2,170.5	23.8	-365.5
1982	5,818.9	4,382.2	1,918.9	13.9	-496.1
1981	5,042.3	4,139.0	1,756.4	6.4	-859.5
1980	6,096.8	4,851.1	1,839.1	79.1	-672.5

¹ Includes adjustment expenses.² Excludes transactions out of Canada.**18.33 Property fire losses, by province, 1985-87**

Province or territory	Population	Reported fires		Loss		Loss per capita	
		Number	10-year average	\$	10-year average \$	\$	10-year average \$
1985 ¹							
Newfoundland	581,100	919	957	20,568,898	15,243,883	35.91	26.38
Prince Edward Island	127,500	694	586	4,731,749	3,836,840	37.23	30.93
Nova Scotia	880,400	2,496	2,543	28,885,453	23,999,702	32.81	27.99
New Brunswick	719,700	2,192	1,517	17,992,520	18,524,020	25.01	26.28
Quebec	6,586,200	13,917	17,873	273,766,421	251,973,345	41.78	39.34
Ontario	9,075,100	23,541	24,727	253,105,581	203,885,622	27.89	23.47
Manitoba	1,071,200	6,461	6,583	36,869,621	35,163,173	34.32	33.82
Saskatchewan	1,018,100	2,797	3,103	25,747,955	28,411,155	25.29	28.98
Alberta	2,359,900	7,850	9,803	116,169,218	106,127,877	49.23	48.34
British Columbia	2,886,500	8,285	7,434	131,932,474	108,100,257	45.61	39.79
Yukon	23,200	224	144	1,412,291	1,629,105	60.87	73.70
Northwest Territories	51,100	205	175	3,657,602	5,380,026	72.49	118.24
National Defence	199,712	209	241	5,659,489	1,848,261	...	...
Federal properties	223,173	261	453	5,456,314	8,212,020	...	...
Canada	25,380,000	70,061	76,139	925,955,586	812,335,286	36.49	33.02
1986 ²							
Newfoundland	568,349	877	897	16,046,768	16,082,751	28.23	27.88
Prince Edward Island	126,600	675	595	2,720,062	3,765,224	21.49	30.26
Nova Scotia	873,199	2,420	2,575	23,611,920	25,044,653	27.04	29.12
New Brunswick	710,422	2,055	1,602	21,301,909	19,109,949	29.98	27.05
Quebec	6,540,276	14,366	17,683	382,748,737	274,443,980	58.52	42.68
Ontario	9,113,515	22,866	24,702	233,735,269	212,948,908	25.65	24.33
Manitoba	1,071,232	5,840	6,444	53,972,761	37,702,599	50.38	36.09
Saskatchewan	1,010,198	2,799	3,095	24,423,740	29,514,327	24.18	29.98
Alberta	2,375,278	7,614	9,796	97,500,768	111,798,759	41.05	50.26
British Columbia	2,889,207	7,667	7,457	109,834,964	111,327,081	38.02	40.50
Yukon	23,504	139	147	1,324,153	1,696,721	56.34	76.25
Northwest Territories	52,238	155	173	3,150,687	5,487,795	60.31	118.96
National Defence	190,580	204	245	2,053,255	2,016,592	...	...
Federal properties	238,969	207	415	1,033,309	6,837,514	...	...
Canada	25,354,108	67,844	75,827	973,458,302	857,776,851	38.39	34.70

18.33 Property fire losses, by province, 1985-87 (concluded)

Province or territory	Population	Reported fires		Loss		Loss per capita	
		Number	10-year average	\$	10-year average \$	\$	10-year average \$
1987 ³							
Newfoundland	568,200	768	903	14,822,123	16,569,177	26.09	28.73
Prince Edward Island	127,300	558	593	4,435,751	3,919,332	34.84	31.35
Nova Scotia	878,900	2,323	2,613	19,968,912	25,857,657	22.72	29.98
New Brunswick	712,300	2,010	1,689	14,546,465	18,159,083	20.42	25.61
Quebec	6,592,600	13,597	17,256	263,415,262	283,400,079	39.96	43.90
Ontario	9,270,700	23,106	24,552	279,925,231	225,273,768	30.19	25.48
Manitoba	1,079,000	5,987	6,367	49,704,396	40,273,884	46.07	38.36
Saskatchewan	1,014,000	2,811	3,066	23,478,991	30,014,744	23.15	30.33
Alberta	2,380,400	7,878	9,629	156,917,168	120,588,429	65.92	53.25
British Columbia	2,925,700	7,542	7,459	117,159,528	115,168,384	40.04	41.36
Yukon	24,400	155	153	1,147,604	1,730,143	47.03	77.15
Northwest Territories	51,700	127	169	4,033,522	5,757,085	78.02	123.69
National Defence	195,354	187	237	5,069,516	2,494,096	...	...
Federal properties	235,582	119	375	1,582,673	6,333,416	...	...
Canada	25,625,200	67,168	75,061	956,207,142	895,539,274	37.32	35.94

¹ Official estimated population published by Statistics Canada, July 1985.² Official Census population published by Statistics Canada, 1986.³ Official estimated population published by Statistics Canada, 1987.**18.34 Fire losses by cause of fire, 1985-87**

Reported cause of fire	Fires reported	Property loss \$'000	Injuries					Deaths			
			Fire-fighters	Men	Women	Children	Un-classified	Fire-fighters	Men	Women	Children
1985											
Arson or other set fires	9,002	147,021.8	323	103	42	4	4	—	21	12	7
Misuse of source of ignition											
Undetermined	8,327	82,779.5	192	272	137	19	1	—	65	36	21
Smoker's material	1,462	12,882.2	25	40	29	9	3	—	14	10	—
Child playing with matches	1,312	9,203.8	35	30	34	53	—	—	1	3	19
Miscellaneous	500	11,940.7	12	20	1	1	—	—	4	—	—
Misuse of material ignited	5,469	47,521.9	103	343	161	52	6	—	19	5	4
Mechanical, electrical failure, malfunction	18,614	178,457.6	221	206	64	11	1	1	30	9	7
Construction, design or installation deficiency	2,870	37,227.6	55	23	12	2	1	—	13	4	8
Misuse of equipment	1,326	15,633.5	33	34	11	6	—	—	10	3	2
Human failing											
Asleep	173	2,116.3	6	12	13	4	2	—	5	1	—
Suspected impairment by alcohol, drugs, medication	200	2,653.6	4	26	6	1	1	—	13	4	—
Miscellaneous	5,306	40,900.1	60	148	57	31	5	—	25	13	7
Vehicle accident	538	10,096.1	2	13	3	—	—	—	5	—	—
Miscellaneous	14,962	327,520.9	362	372	138	59	—	—	81	29	39
Total	70,061	925,955.6	1,433	1,642	707	252	24	1	306	129	114
1986											
Arson or other set fires	8,927	215,921.1	244	74	42	10	1	—	39	19	4
Misuse of source of ignition											
Smoker's material	1,379	13,532.3	22	53	20	5	5	—	26	12	4
Child playing with matches	1,331	9,976.0	60	32	37	56	2	—	2	1	11
Welding, cutting, thawing	384	11,995.3	6	25	—	1	3	—	3	—	—
Unclassified	7,753	84,645.0	173	266	110	25	—	1	47	30	22
Misuse of material ignited	5,002	42,712.6	98	319	170	39	2	—	21	11	8
Mechanical, electrical failure, malfunction	18,263	172,400.8	170	168	56	12	2	1	12	10	15
Construction, design or installation deficiency	2,404	34,072.4	37	30	9	3	1	—	9	3	8
Misuse of equipment	1,312	13,193.1	22	38	8	3	—	—	4	1	2
Human failing											
Asleep	150	1,550.1	1	17	6	2	—	—	3	2	—
Suspected impairment by alcohol, drugs, medication	171	1,482.8	1	27	6	1	2	—	13	7	2
Miscellaneous	5,767	40,355.8	65	187	84	18	4	1	22	12	4
Vehicle accident	699	15,560.2	2	17	—	—	1	—	13	4	—
Miscellaneous	14,342	316,060.8	385	434	109	38	4	—	82	34	28
Total	67,884	973,458.3	1,286	1,687	657	213	27	3	296	146	108

18.34 Fire losses by cause of fire, 1985-87 (concluded)

Reported cause of fire	Fires reported	Property loss \$'000	Injuries					Deaths			
			Fire-fighters	Men	Women	Children	Un-classified	Fire-fighters	Men	Women	Children
1987											
Arson or other set fires	8,994	157,769.8	257	147	66	12	1	3	21	12	1
Misuse of source of ignition											
Smoker's material	1,261	13,187.1	19	54	20	6	1	—	27	14	7
Child playing with matches	1,289	10,646.7	39	24	27	47	—	—	3	3	21
Welding, cutting, thawing	358	8,725.6	9	6	—	1	—	—	1	—	—
Unclassified	4,985	42,891.3	150	201	108	24	2	1	41	10	6
Misuse of material ignited	8,437	84,967.1	120	389	220	45	—	—	37	16	3
Mechanical, electrical failure, malfunction	17,482	235,467.1	238	230	54	18	2	1	29	13	8
Construction, design or installation deficiency	4,617	61,147.6	101	114	37	21	—	1	7	4	1
Misuse of equipment	879	8,116.1	38	37	8	3	—	—	5	2	2
Human failing											
Asleep	127	923.8	1	8	4	—	—	—	9	1	2
Suspected impairment by alcohol, drugs, medication	170	1,702.5	6	34	7	1	—	—	6	—	4
Miscellaneous	3,765	30,632.9	37	129	72	16	5	—	16	13	—
Vehicle accident	616	5,858.1	3	17	3	—	—	1	17	3	—
Miscellaneous	14,188	294,171.4	278	216	71	37	2	—	96	27	21
Total	67,168	956,207.1	1,296	1,606	697	231	13	7	315	118	76

18.35 Fire losses by type of property, 1985-87

Type of property	1985		1986		1987	
	Fires reported	Property loss \$'000	Fires reported	Property loss \$'000	Fires reported	Property loss \$'000
Residential	33,150	389,806.5	32,184	381,221.4	30,735	382,633.4
Assembly	1,997	76,058.2	2,038	81,300.1	2,108	71,922.2
Institutional	613	2,455.5	618	5,309.4	588	5,446.3
Business and personal services	594	20,040.4	522	96,063.3	583	20,582.1
Mercantile	2,050	102,224.3	2,037	82,164.7	2,037	100,109.4
Manufacturing	1,655	93,249.7	1,798	81,309.6	1,780	147,135.5
Storage	1,930	57,395.8	1,905	46,728.1	1,771	63,279.1
Special properties	24,068	105,428.3	23,691	114,104.9	24,412	88,437.2
Farm properties	1,422	48,592.0	1,320	50,508.8	1,351	46,615.3
Miscellaneous	2,582	30,704.9	1,771	34,748.0	1,803	30,046.6
Total	70,061	925,955.6	67,884	973,458.3	67,168	956,207.1

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CHAPTER 19

GOVERNMENT

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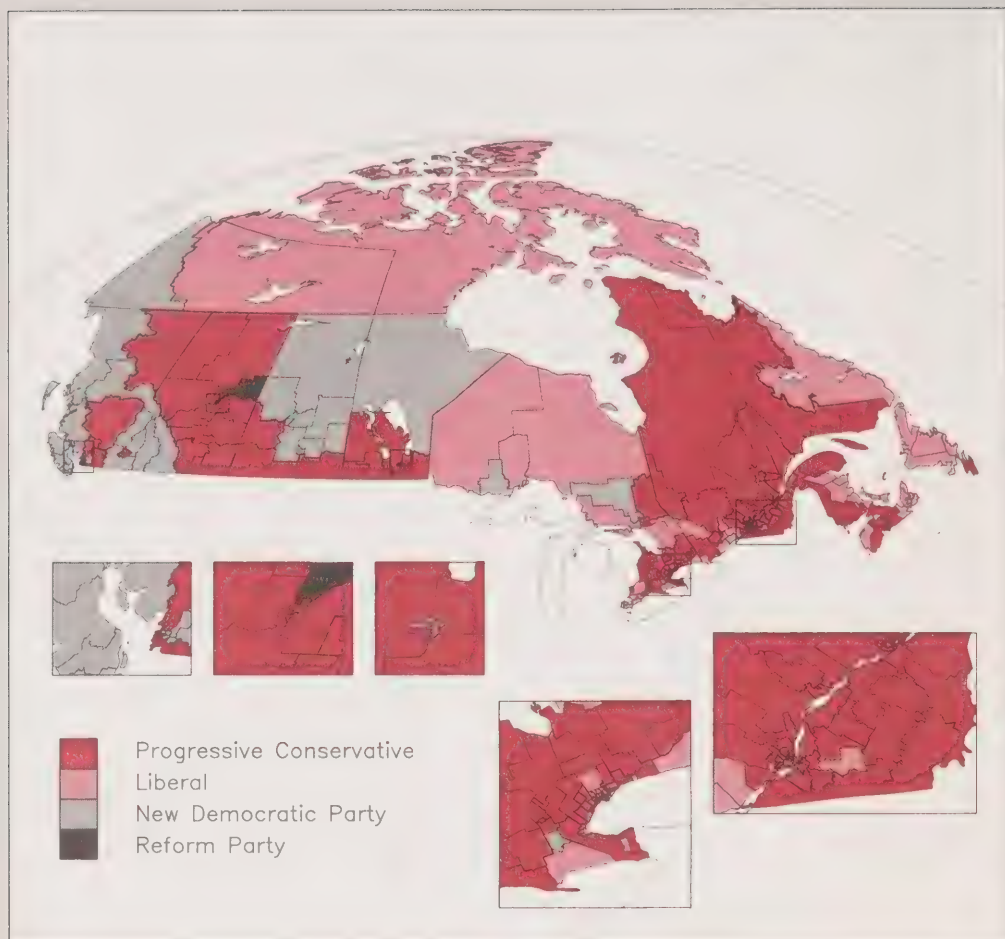
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FEDERAL ELECTORAL REPRESENTATION, 1988

The majority of support for the governing Conservative party was found in Quebec and Ontario. The opposition parties dominated the rest of the country.

The results of each decennial Census are used to adjust the number of seats in the House of Commons and redistribute constituencies to reflect population changes. The redistribution in 1987 added 13 seats to the House of Commons to bring the total number of seats to 295.

1988 data mapped by Federal Electoral District

Map produced by Geocartographics Division, Statistics Canada.

CHAPTER 19

GOVERNMENT

19.1 Organization of the federal government

The Canadian federal state of 10 provinces and two territories had its foundation in an act of the British Parliament, the British North America Act, 1867, renamed the Constitution Act, 1867 by the Constitution Act, 1982. The latter Act contains the Canadian Charter of Rights and Freedoms and other new provisions, including the procedure for amending the constitution of Canada. The Constitution Act, 1867 not only established the institutions through which legislative, executive and judicial powers are exercised in Canada but also established a federal form of government. A central government — the federal government — has legislative jurisdiction primarily over matters of national concern and over those matters not assigned to the provinces. The 10 provincial governments are assigned specific areas of legislative jurisdiction, including municipal institutions.

In Canada, there is a fusion of executive and legislative powers. Formal executive power is vested in the Queen, whose authority is delegated to the Governor General, her representative. Legislative power is vested in the Parliament of Canada which consists of the Queen, an appointed upper house (the Senate) and a lower house (the House of Commons) elected by universal adult suffrage. The independence of the judiciary is safeguarded through the constitutional provision that superior court judges are appointed by the Governor-in-Council, that is, by the Governor General on advice of the Cabinet, and that they hold office during good behaviour and cannot be removed unless both houses of Parliament, the Cabinet and the Governor General agree.

19.1.1 Responsible government

In the Canadian system, where the executive is part of Parliament, democratic principles could not be adhered to without the constitutional convention that the government is responsible to the House of Commons.

Federal elections are governed by the Canada Elections Act and are held following the dissolution of Parliament. A dissolution of Parliament is a prerogative of the Governor General of Canada, acting on the advice of the Prime Minister. Parliament may be dissolved at any time but it has never yet been dissolved prior to meeting at least once. The normal courses of Parliament range from three to four years while an election must be held at least five years from the date of the return of the writs of election. It is a fundamental convention of the Canadian system, in which the executive is part of Parliament, that if the government of the day loses the confidence of the House of Commons, it must resign or the Prime Minister must ask the Governor General to dissolve Parliament and call a general election.

Although there are conventions that help in deciding when the government has lost the confidence of the house, all doubt is removed when the government is defeated on a motion on which it had explicitly staked its life or when a motion of non-confidence in the government is passed. If the government resigns, the Governor General can call on the leader of the opposition (who is usually the leader of the political party that has the second largest number of seats in the House of Commons) to form a new government. If a government that has lost the confidence of the House of Commons and has been granted a dissolution is defeated in the ensuing general election and if no clear majority is elected, the government has two choices — it can remain in office and seek the confidence of the Commons when it meets or it can resign at once. If it resigns, the Governor General will normally ask the leader of another party, usually the one that has won the most seats, to form a new government. The primary responsibility of the Governor General in either circumstance is to provide the nation with a government capable of carrying on with the support of the House of Commons.

Once Parliament is dissolved the chief electoral officer issues writs of election to returning officers in the various constituencies across Canada. The

number of constituencies is based on the general principle of representation according to population. This principle is based on overall provincial populations and the population of individual constituencies can vary. Consequently, following each decennial Census there is a redistribution of constituencies as well as a general adjustment in the number of seats in the House of Commons to reflect population changes.

Canada has a system of universal suffrage and Parliament is democratically elected. All Canadians, above the age of 18, are eligible to vote in federal elections. The electoral system has been modified several times and a recent change was the addition of political parties to the ballots. Another feature of the system is advance polls and proxy voting for individuals not able to vote at their local polling stations on election day.

Political parties have developed over time as the political power of legislatures grew and there was a need to establish some stability in government. Canada has a multi-party system and there is no restriction on the number of political parties that may contest federal elections. Those political parties wishing to endorse candidates for an election must register with the office of the chief electoral officer. A new political party wishing to be identified on the ballot paper must have candidates officially nominated in at least 50 electoral districts by the 30th day before polling day.

At various times a number of parties representing a wide spectrum of viewpoints have presented candidates and elected members to Parliament. Following the November 21, 1988 general election three parties were represented in the House of Commons: the Progressive Conservatives, who form the government; the Liberals, who are the official opposition; and the New Democratic Party. Political parties are not all organized in the same fashion and their methods of operations have evolved over time in accordance with the wishes of their members. Every political party has a leader who speaks on behalf of the party both within and outside the House of Commons.

The Prime Minister and the Cabinet are generally members of the House of Commons, although some may be senators. They are, formally speaking, the Queen's advisers. In fact virtually no significant actions can be taken by the Queen or her representative in Canada, the Governor General, without Cabinet advice. The Prime Minister and the Cabinet determine executive policies and are responsible for them to the House of Commons. The Queen and the Governor General have the traditional rights to be consulted, to encourage and to warn the government.

The needs and wishes of citizens are conveyed primarily to members of Parliament or directly or indirectly to Cabinet Ministers. Requests for government action may originate from individuals, political parties or pressure groups; members of Parliament, Cabinet Ministers and public servants may take the initiative in suggesting the adoption of policies and programs in the public interest.

Determination of public policy rests with the Cabinet but begins generally with the formulation of policy by individual ministers. Working in co-operation with public servants, a minister formulates policy proposals for consideration by his colleagues in the Cabinet. The Cabinet chooses those policies it wishes to implement, may itself formulate policies, or may select a policy from among the alternatives submitted.

Rule of law. Conforming with the principle of the rule of law, all executive acts must be authorized by law, and laws are enacted by Parliament. Executive acts may be carried out under a statute which specifies how a policy is to be implemented, or by means of an order-in-council under a statute which authorizes the Governor-in-Council (i.e., the Governor General acting on advice from Cabinet) to undertake specific acts. Much of the activity of the public service is authorized through yearly appropriation acts approving the expenditure of public funds for specific purposes. Apart from the appropriation of funds, Parliament is concerned with discussion and authorization of policy submitted for its approval by the government. Approval of policies is mainly through the enactment of legislation. The rules of procedure are included in the standing orders of the House of Commons.

A significant feature of the parliamentary process is that Cabinet Ministers have seats in Parliament and thus share in the exercise of legislative power. The majority of legislation enacted by Parliament is submitted by the government; the Constitution provides that all financial measures must originate in the Commons.

The judiciary applies the laws enacted by Parliament. Because Parliament is supreme in the Canadian government, the judiciary must apply the law as Parliament has enacted it, unless a law is declared to be unconstitutional, or not within the legislative jurisdiction of Parliament or of the legislature that enacted it.

Government administration. Administration of legislation and of government policies is carried out through a public service comprising employees organized in departments and ministries of government and special boards, commissions, Crown corporations and other agencies. Legislation and

tradition have developed a non-partisan public service; employee tenure is unaffected by changes in government. The only direct contact public servants have with Parliament occurs when they are called as witnesses before parliamentary committees; they do not, by convention, express opinions on public policy but usually appear as experts and to explain existing policy. Public servants who head agencies such as the Public Service Commission, the office of the Auditor General, the office of the Commissioner of Official Languages, the Library of Parliament or the office of the Chief Electoral Officer are responsible directly to Parliament. They are not subject to direction by the government on matters of policy and may appear before parliamentary committees to explain the policies of their agencies.

Growth in number, variety and complexity of the demands placed on the government requires it not only to adjust its policies but to make changes in the organization of the public service so that required policies can be implemented. Major reorganizations of the public service were authorized by a series of government organization acts in 1966, 1969, 1970, 1976, 1979 and 1982.

19.2 The executive

19.2.1 The Crown

The Sovereign. Since Confederation, Canada has had six sovereigns: Victoria, Edward VII, George V, Edward VIII, George VI and Elizabeth II. The present sovereign is not only Queen of Canada but is also head of state of other countries in the Commonwealth as well as being the formal head of the Commonwealth. Her title for Canada was approved by Parliament and established by a royal proclamation on May 28, 1953: Elizabeth the Second, by the grace of God of the United Kingdom, Canada and her other realms and territories, Queen, Head of the Commonwealth, Defender of the Faith.

From time to time the Queen personally discharges the functions of the Crown in Canada, such as the appointment of the Governor General, which Her Majesty does on the recommendation of the Prime Minister of Canada. During a royal visit, the Queen may participate in ceremonies normally carried out in her name by the Governor General, such as the opening of Parliament or the granting of a general amnesty.

The Governor General is the representative of the Crown in Canada. The Right Honourable Jeanne Sauv , the 23rd Governor General since Confederation and Canada's first woman Governor

General, was appointed by Queen Elizabeth on December 23, 1983 and took office on May 14, 1984. Constitutionally, the Queen of Canada is the Canadian head of state but the Governor General fulfils her role on her behalf. The letters patent revised and issued under the Great Seal of Canada on October 1, 1947 authorized and empowered the Governor General, on the advice of the Canadian ministers to exercise all powers and authorities lawfully belonging to the Sovereign in respect of Canada.

Following are the Governors General of Canada since Confederation, with dates of assumption of office:

The Viscount Monck of Ballytramon, July 1, 1867
The Baron Lisgar of Lisgar and Bailieborough, February 2, 1869

The Earl of Dufferin, June 25, 1872

The Marquis of Lorne, November 25, 1878

The Marquis of Lansdowne, October 23, 1883

The Baron Stanley of Preston, June 11, 1888

The Earl of Aberdeen, September 18, 1893

The Earl of Minto, November 12, 1898

The Earl Grey, December 10, 1904

Field Marshal HRH The Duke of Connaught, October 13, 1911

The Duke of Devonshire, November 11, 1916

General The Baron Byng of Vimy, August 11, 1921

The Viscount Willingdon of Ratton, October 2, 1926

The Earl of Bessborough, April 4, 1931

The Baron Tweedsmuir of Elsfield, November 2, 1935

Major General The Earl of Athlone, June 21, 1940

Field Marshal The Viscount Alexander of Tunis, April 12, 1946

The Right Honourable Vincent Massey, February 28, 1952

General The Right Honourable Georges P. Vanier, September 15, 1959

The Right Honourable Roland Michener, April 17, 1967

The Right Honourable Jules L ger, January 14, 1974

The Right Honourable Edward Schreyer, January 21, 1979

The Right Honourable Jeanne Sauv , May 14, 1984.

One of the most important responsibilities of the Governor General is to ensure that the country always has a government. If the office of the Prime Minister becomes vacant because of death or resignation, the Governor General must see that it is filled and that a new government is formed.

As the Queen's representative, the Governor General summons, prorogues and dissolves

Parliament on the advice of the Prime Minister. The Governor General signs orders-in-council, commissions and other state documents, and gives assent to bills that have been passed in both houses of Parliament and which thereby become acts of Parliament with the force of law. In virtually all cases, the Governor General is bound by constitutional convention to carry out these duties in accordance with the advice of the responsible ministers. Should the Governor General not wish to accept their advice, and should they maintain that advice, the only alternative is to replace the existing government with a new government but only if the principle of responsible government could be upheld. Thus the Governor General's discretion in choosing another government is strictly limited to a situation in which a person other than the existing Prime Minister could command the confidence of the House of Commons.

Canadian honours system. An exclusively Canadian honours system was introduced in 1967 with the establishment of the Order of Canada. The honours system was enlarged in 1972 with the addition of the Order of Military Merit and three decorations to be awarded in recognition of acts of bravery.

19.2.2 The Privy Council

The Constitution Act, 1867 (Sect. 11) provides for a council to aid and advise in the Government of Canada, called the Queen's Privy Council for Canada. The council that in fact advises the Queen's representative, the Governor General, is the Cabinet, an informal committee of the Privy Council composed of Ministers, which commands the support of a majority of the House of Commons.

Membership in the Privy Council is for life and includes Cabinet Ministers of the government of the day, former Cabinet Ministers, the Chief Justice of Canada and former Chief Justices, former speakers of the Senate and the House of Commons of Canada and occasionally other distinguished persons, including members of the royal family, past and present Commonwealth Prime Ministers and premiers of provinces. As a condition of office, all Ministers must first be sworn into the Privy Council. A member is styled "Honourable" and may use the initials PC after his name. The Governor General, the Chief Justice of Canada and the Prime Minister of Canada automatically are given the title "Right Honourable" by royal warrant when they take office.

The Privy Council as a whole has met on only a few ceremonial occasions, for example, on

March 27, 1981 to receive the Queen's consent to the marriage of the Prince of Wales, as heir to the Canadian Crown, and Lady Diana Spencer. Its constitutional responsibilities to advise the Crown on government matters are discharged exclusively by the Cabinet. The legal instruments through which executive authority is exercised are called orders-in-council. A number of Ministers, acting as a committee of the Privy Council, make a submission to the Governor General for approval which by convention is given in almost all circumstances; with this approval, the submission becomes an order-in-council.

The office of president of the Privy Council was formerly occupied, more often than not, by the Prime Minister; in recent years, it has been occupied by another Minister who is usually also government leader in the House of Commons, with the broad responsibility of directing house business, including supervision of the government's replies to questions in the House and of parliamentary returns in general, and a special responsibility of ensuring that Parliament, through its operations and organization of business, can effectively function under the increasing pressure of modern government.

19.2.3 The Prime Minister

The Prime Minister is the leader of the political party requested by the Governor General to form the government, which almost always means the leader of the party with the strongest representation in the Commons. His position is one of exceptional authority stemming in part from the success of the party at an election. The Prime Minister chooses his Cabinet. When a member of Cabinet resigns, the remainder of the Cabinet is undisturbed; when the Prime Minister vacates his office, this act normally carries with it the resignation of the Cabinet.

Part of the Prime Minister's authority lies in his power to recommend to the Governor General dissolution of Parliament. This right, which in most circumstances permits him to precipitate an election, is a source of considerable power both in his dealings with colleagues and with the opposition parties in the House. The Prime Minister is also responsible for organization of the Cabinet and its committees; for the organization and functions of his own office, as well as the Privy Council office and the federal-provincial relations office; and for the allocation of responsibilities between Ministers.

Another source of the Prime Minister's authority derives from the appointments which he recommends to the Governor General, including

privy councillors, Cabinet Ministers, lieutenant-governors of the provinces, provincial administrators, speakers of the Senate, chief justices of all courts, senators and certain senior executives of the public service. The Prime Minister also recommends the appointment of a new Governor General to the Sovereign, although this normally follows consultation with the Cabinet.

Following are the Prime Ministers since Confederation, with dates of administrations:

Rt. Hon. Sir John Alexander Macdonald, July 1, 1867 — November 5, 1873

Hon. Alexander Mackenzie, November 7, 1873 — October 9, 1878

Rt. Hon. Sir John Alexander Macdonald, October 17, 1878 — June 6, 1891

Hon. Sir John Joseph Caldwell Abbott, June 16, 1891 — November 24, 1892

Rt. Hon. Sir John Sparrow David Thompson, December 5, 1892 — December 12, 1894

Hon. Sir Mackenzie Bowell, December 21, 1894 — April 27, 1896

Rt. Hon. Sir Charles Tupper, May 1, 1896 — July 8, 1896

Rt. Hon. Sir Wilfrid Laurier, July 11, 1896 — October 6, 1911

Rt. Hon. Sir Robert Laird Borden, October 10, 1911 — October 12, 1917 (Conservative Administration)

Rt. Hon. Sir Robert Laird Borden, October 12, 1917 — July 10, 1920 (Unionist Administration)

Rt. Hon. Arthur Meighen, July 10, 1920 — December 29, 1921 (Unionist — National Liberal and Conservative Party)

Rt. Hon. William Lyon Mackenzie King, December 29, 1921 — June 28, 1926

Rt. Hon. Arthur Meighen, June 29, 1926 — September 25, 1926

Rt. Hon. William Lyon Mackenzie King, September 25, 1926 — August 6, 1930

Rt. Hon. Richard Bedford Bennett, August 7, 1930 — October 23, 1935

Rt. Hon. William Lyon Mackenzie King, October 23, 1935 — November 15, 1948

Rt. Hon. Louis Stephen St-Laurent, November 15, 1948 — June 21, 1957

Rt. Hon. John George Diefenbaker, June 21, 1957 — April 22, 1963

Rt. Hon. Lester Bowles Pearson, April 22, 1963 — April 20, 1968

Rt. Hon. Pierre Elliott Trudeau, April 20, 1968 — June 4, 1979

Rt. Hon. Joe Clark, June 4, 1979 — March 3, 1980

Rt. Hon. Pierre Elliott Trudeau, March 3, 1980 — June 30, 1984

Rt. Hon. John Napier Turner, June 30, 1984 — September 17, 1984

Rt. Hon. Martin Brian Mulroney, September 17, 1984 —

19.2.4 The Cabinet

The Cabinet consists of all the Ministers who are chosen by the Prime Minister, generally from among members of the House of Commons, although some Cabinet Ministers are usually chosen from the Senate including the leader of the government in the Senate. Ministers who are members of Parliament usually head government departments because the Constitution provides that measures for appropriating public funds or imposing taxes must originate in the Commons. If a senator heads a department, another Minister in the Commons has to speak on his behalf on its affairs.

Each Cabinet Minister usually assumes responsibility for one of the departments of government, although a Minister may hold more than one portfolio at the same time or he or she may hold one or more portfolios and one or more acting portfolios. A Minister without portfolio may be invited to join the Cabinet because the Prime Minister wishes to have him or her in the Cabinet without the heavy duties of running a department, or to provide a suitable balance of regional representation, or for any other reason that the Prime Minister sees fit. Because of Canada's cultural and geographical diversity, the Prime Minister gives close attention to geographic representation in the Cabinet.

With the enactment of the Ministries and Ministers of State Act (Government Organization Act, 1970), five categories of ministers of the Crown may be identified: departmental ministers, ministers with special parliamentary responsibilities, ministers without portfolio, and three types of ministers of state. Ministers of state for designated purposes may head a ministry of state created by proclamation. Ministries of State are charged with developing new and comprehensive policies in areas of particular urgency and importance and have a mandate determined by the Governor-in-Council. Those ministers may have powers, duties and functions and exercise supervision and control of elements of the public service, and may seek parliamentary appropriations to cover the cost of their staff and operations. Other ministers of state may be appointed to assist departmental ministers with their

responsibilities. They may have powers, duties and functions delegated to them by the departmental minister, who retains ultimate legal responsibility. Ministers of state of a third group may be appointed under the Act to be members of the ministry without being assigned to assist a particular minister. All ministers are appointed on the advice of the Prime Minister by commissions of office issued by the Governor General under the Great Seal of Canada, to serve and to be accountable to Parliament as members of the government and for any responsibility that might be assigned to them by law or otherwise.

In Canada, almost all executive acts of the government are carried out in the name of the Governor-in-Council. The Cabinet, or a committee of ministers acting as a committee of the Privy Council, makes submissions for approval to the Governor General, who is bound by the constitution in nearly all circumstances to accept them. Although some are routine and require little discussion in Cabinet, others are of major significance and require extensive deliberation, sometimes covering months of meetings of officials, Cabinet committees and the full Cabinet.

The Cabinet considers and approves the policy underlying each piece of proposed legislation. After proposed legislation is drafted it must be examined in detail. Between 40 and 60 bills are normally considered by Cabinet during a parliamentary session. Policies to be adopted in fundamental constitutional changes or at a major international conference are among the issues which, on occasion, demand this extensive and detailed consideration.

The Cabinet committee system. The nature and large volume of policy issues to be decided on by Cabinet do not lend themselves to discussion by 40 or more ministers. Growing demands on the executive have stimulated delegation of some Cabinet functions to its committees.

Cabinet committees provide a forum for thorough study of policy and expenditure proposals, although the Cabinet remains the prime focus of decision-making. Membership of Cabinet committees is public but the same rules of secrecy that apply to Cabinet deliberations apply to Cabinet committees. The Prime Minister determines the establishment of Cabinet committees, their membership and terms of reference. Attendance by departmental officials during Cabinet committee meetings is strictly limited. The secretariats of the committees are provided by the Privy Council office and the secretary of a Cabinet committee is usually also an assistant secretary to the Cabinet. Treasury Board, which is a Cabinet committee

and a committee of the Privy Council established by statute is an exception; it has its own secretariat headed by a secretary who has the status of a deputy minister.

Under the direction of the Prime Minister, the secretary to the Cabinet prepares agenda and refers memoranda to Cabinet to the appropriate committee for study and report to the full Cabinet. Except where the Prime Minister instructs otherwise, all memoranda to Cabinet are submitted over the signature of the Minister concerned.

The terms of reference of Cabinet committees cover virtually the total area of government responsibility. All memoranda to Cabinet are first considered by a Cabinet committee, except when they are of exceptional urgency or when the Prime Minister directs otherwise, in which case an item may be considered immediately by the Cabinet committee on priorities and planning or the full Cabinet.

On the initiative of a Minister, a policy proposal is prepared, the implementation of which will require new legislation or the amendment of existing legislation. The proposal is addressed formally to Cabinet, but is considered first by the relevant policy committee. If approved, the proposal goes forward as a recommendation for confirmation or consideration by Cabinet.

If the committee's decision is confirmed, the Justice Department is instructed to prepare a draft bill expressing in legal terms the intent of the policy proposal. When the draft bill has the Minister's approval, he submits it to the Cabinet committee on legislation and House planning where it is examined from a legal rather than a policy point of view. Once this committee agrees that the bill is acceptable in all respects, or with modifications, and could be introduced in Parliament, it reports this to Cabinet. If Cabinet confirmation is given, the Prime Minister initials the bill and it is then introduced either in the Senate or the House of Commons, depending on constitutional and political considerations.

The order and manner in which a bill is considered in Parliament is the responsibility of the president of the Privy Council and government House leader who negotiates these matters with his counterparts in the opposition parties. If a bill is to be introduced in the Senate, the president of the Privy Council will discuss questions such as timing and tactics with the leader of the government in the Senate, who in turn will negotiate consideration of the bill with the opposition leader in the Senate.

The Privy Council office is a secretariat providing staff support to the Prime Minister and to the

Cabinet. For the purposes of the Financial Administration Act, it is considered a government department. Since the Prime Minister is, in effect, chairman of the Cabinet, he is the Minister responsible for the Privy Council office. The work of the Privy Council office is directed by a public servant known as the clerk of the Privy Council and secretary to the Cabinet. He is the senior member of the public service of Canada.

Parliamentary secretaries. The Parliamentary Secretaries Act of June 1959 provided for the appointment of 16 parliamentary secretaries from among the members of the Commons to assist Ministers. That Act was amended by the Government Organization Act, 1970, which allows the number of parliamentary secretaries to equal the number of Ministers who hold offices listed in Section 4 of the Salaries Act, that is, Ministers with departmental responsibilities, the Prime Minister, the leader of the government in the Senate and the president of the Privy Council. A parliamentary secretary works under direction of a Minister, but has no legal authority in association with the department, and is not given acting responsibility or any of the powers, duties and functions of a Minister in that Minister's absence or incapacity. Parliamentary secretaries are appointed by the Prime Minister.

19.3 The legislature

The federal legislative authority is vested in the Parliament of Canada — the Queen, the Senate and the House of Commons. Bills may originate in either the Senate or the House of Commons, subject to Section 53 of the Constitution Act, 1867, which provides that bills for the appropriation of any part of the public revenue or the imposition of any tax or impost shall originate in the House of Commons. Bills must pass both houses and receive royal assent before becoming law. In practice, most public bills originate in the House of Commons although, at the request of the government, more have recently been introduced in the Senate in order that they may be dealt with there while the Commons is engaged in other matters such as the debate on the speech from the throne. Private bills may originate in either the House of Commons or the Senate. The Senate may delay, amend or even refuse to pass bills sent to it from the Commons, but differences are usually settled without serious conflict.

The law-making process. If a bill is introduced and approved in the House of Commons, it is then introduced in the Senate and follows a similar procedure. If a bill is first introduced in the Senate,

the reverse procedure is followed. There are three types of bills: public bills introduced by the government; public bills introduced by private members of Parliament; and private bills introduced by private members of Parliament. All bills must pass through various stages before they become law. These stages provide Parliament with opportunities to examine and consider all bills both in principle and in detail. Each type is treated in a slightly different manner, and there are even differences in procedure when the House deals with government bills introduced pursuant to supply and ways and means motions on the one hand, and other government bills on the other. The following outline describes the procedure for a government bill introduced in the House of Commons.

The sponsoring minister gives notice that he intends to introduce a bill on a given subject. Not less than 48 hours later he moves for leave to introduce the bill and that the bill be given first reading. This is normally granted automatically because this first step does not imply approval of any sort. It is only after first reading that the bill is ordered printed for distribution to the members.

At a later sitting, the minister moves that the bill be given second reading and that it be referred to an appropriate committee of the House of Commons. A favourable vote on the motion for second reading represents approval of the bill in principle so there is often an extensive debate, which, according to the procedures of the Commons, must be confined to the principle of the bill. The debate culminates in a vote which, if favourable, results in the bill being referred to the appropriate committee of the House, where it is given clause-by-clause consideration.

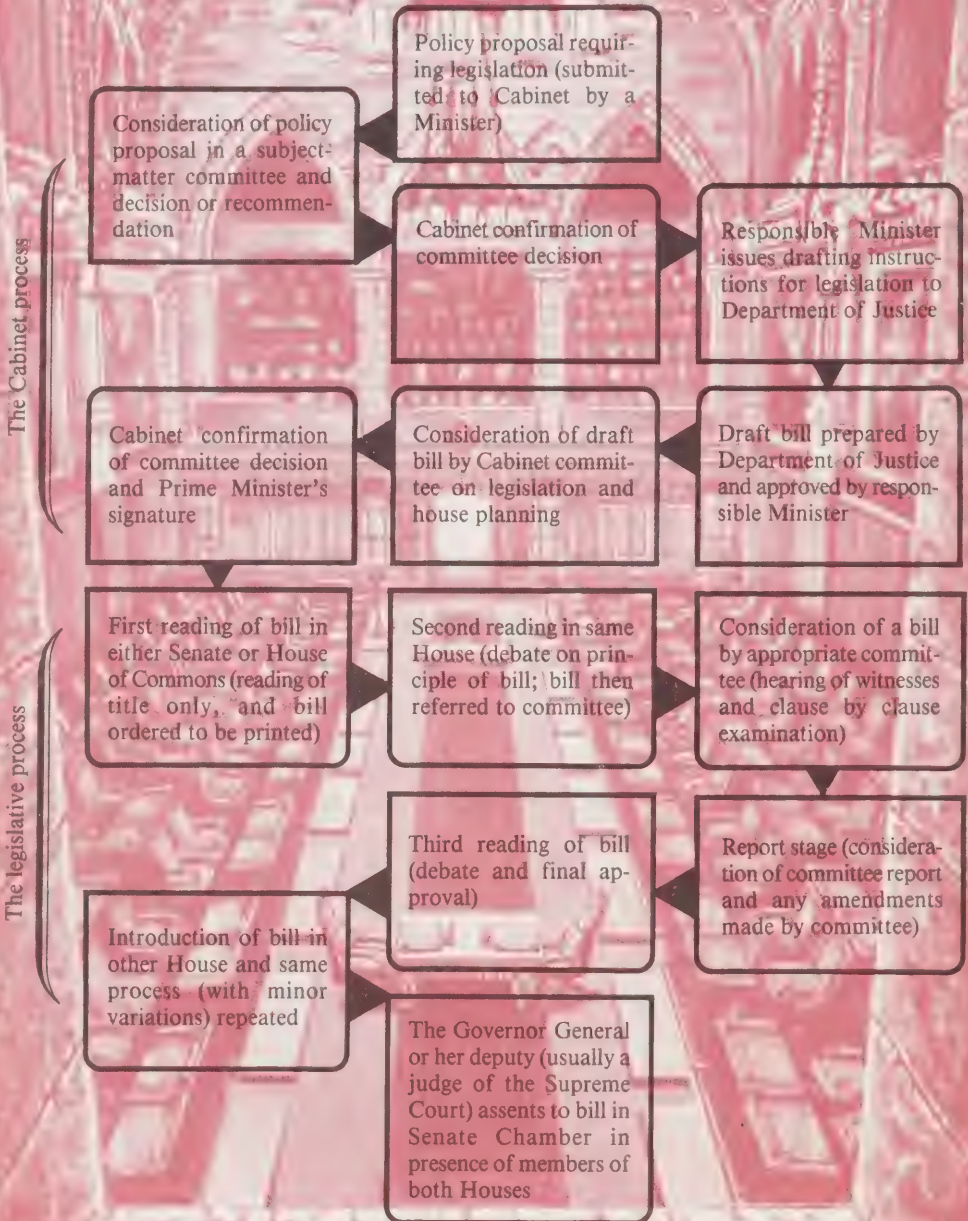
At the committee stage, expert witnesses and interested parties may be invited to give testimony pertaining to the bill, and the proceedings may cover many weeks.

The House committee prepares and submits a report to the House of Commons which must decide whether to accept the report, including any amendments the committee has made to the bill. At the report stage, any member may, on giving 24 hours notice, move an amendment to the bill. All such amendments are debated and are usually put to a vote. Following that, a motion "that the bill be concurred in" or "that the bill, as amended, be concurred in", is put to the vote.

After this report stage, the Minister moves that the bill be given third reading and passage. Debate on this motion is limited to whether the bill should be given third reading. Amendments are

Chart 19.1

The legislative process



permitted at this stage but they must be of a general nature, similar to those allowed on second reading. If the vote is favourable, the bill is introduced in the Senate where it goes through a somewhat similar though not identical process, since each chamber has its own rules of procedure. After the bill has been passed by both houses, it is given royal assent by the Governor General or by his or her deputy, the Chief Justice, or one of the other judges of the Supreme Court of Canada. The assent ceremony takes place in the Senate chamber in the presence of representatives of both houses of Parliament. The bill comes into force as soon as it is assented to, unless there is a provision in the bill stating that it will come into force on the day on which it is officially proclaimed.

19.3.1 The Senate

The Senate was established to protect the interests of the less populous regions of Canada in matters under federal jurisdiction. Accordingly, Senate membership is based upon the principle of regional representation rather than representation by population as in the House of Commons.

Representation in the Senate has increased from 72 at Confederation to its present total of 104 members through the addition of members to represent new provinces and territories. This increase in the number of seats in the Senate is summarized in Table 19.2. The 104 Senate seats are distributed as follows: Newfoundland, six; the Maritime provinces, 24 (10 each from Nova Scotia and New Brunswick and four from Prince Edward Island); Quebec, 24; Ontario, 24; the Western provinces, 24 (six each from Manitoba, Saskatchewan, Alberta and British Columbia); and the Yukon and Northwest Territories, one each.

Senators are appointed, in the Queen's name, by the Governor General on the advice of the Prime Minister. Until 1965, senators were appointed for life; now the retirement age is 75 years, the same as that set for federal judges.

As of October 3, 1988, representation in the Senate by political parties was as follows: Liberals, 58; Progressive Conservatives, 35; Independents, 5; Independent Progressive Conservative, 1; vacancies, 5. A list of senators is published in Appendix C of this edition.

The Senate performs three basic functions. In its legislative role, its major work is in the revision of government bills, especially complex, technical bills, either received from the House of Commons for concurrence or introduced in the Senate itself. Committees composed of senators, with specialized knowledge and years of experience in law, business or administration, study the bills,

hear witnesses and recommend amendments considered necessary or desirable.

In its deliberative role, the Senate provides a national forum for the discussion of public issues. On two days' notice, a senator can start a debate, with no time limits, on any subject. Such debates focus attention on matters of public interest and provide an opportunity for the airing of regional concerns. During question period, senators may also ask questions of the government.

In its investigative role, the Senate inquires into major social and economic issues. Its standing and special committees have, over the years, produced reports that have often been followed by remedial legislation or changes in government policy. An example is the three-volume report produced between 1975 and 1982, entitled *Canada-United States Relations*, the last two volumes of which dealt with Canada's trade relations with the United States. Other studies have dealt with public problems such as poverty, unemployment, inflation, aging, land use, science policy and national defence.

The Senate has the same legislative or veto power as the House of Commons, that is, every bill to become law must be passed in identical terms by both Houses. The Senate's legislative authority, however, is subject to two limitations. One is the requirement that appropriation and tax bills (commonly referred to as money bills) must originate in the House of Commons. The other is that, since the patriation of the Constitution in 1982 and the consequent involvement of provincial legislatures in the amendment process, constitutional amendments made by the House of Commons may be re-adopted by that House if not agreed to by the Senate after a period of 180 days. (See Appendix E, section 47 of the Constitution Act, 1982.) The Senate's legislative authority in this respect is referred to as a suspensive veto.

Procedure in the Senate is governed by the Rules of the Senate, a compilation of standing orders. The Speaker of the Senate is named by the Governor General, who acts on the advice of the Prime Minister. Because the Speaker is not elected, the rules provide that the Speaker's decisions may be appealed. Other officers of the Senate include the leader of the government in the Senate, who is usually appointed as a member of the Cabinet and thus serves as the principal link between the government and the Senate, the leader of the opposition in the Senate, the deputy leaders, the party whips and the committee chairmen.

Supporting the senators is an administration of about 450 permanent employees, headed by the clerk of the Senate. Since the Senate is

independent of the government, employees of the Senate are not government employees.

Further information on the Senate may be obtained from the Senate information services, Room 300, Victoria Building, 140 Wellington St., Ottawa, K1A 0A4.

19.3.2 The House of Commons

The number of members in the House of Commons is determined by the readjustment of federal electoral districts based on population counts of the decennial Censuses of Canada, conducted by Statistics Canada. The number of representatives elected at each general election since Confederation is given in Table 19.3.

The federal franchise. The present federal franchise laws are contained in the Canada Elections Act (RSC 1970, c.14, 1st Supp. as amended). Generally, the franchise is conferred upon all Canadian citizens who have reached age 18 and ordinarily live in the electoral district on the date fixed for the beginning of the enumeration at the election. Persons denied the right to vote are: the chief electoral officer and the assistant chief electoral officer; judges appointed by the Governor-in-Council; the returning officer for each electoral district; inmates of any penal institution; persons whose liberty of movement is restricted or who are deprived of the management of their property because of mental disease; and persons disqualified for corrupt or illegal practices under the Canada Elections Act.

The special voting rules set out in Schedule II to the Canada Elections Act prescribe voting procedures for members of the Canadian forces, for members of the federal public service posted abroad, and also for veterans receiving treatment or domiciliary care in certain institutions.

Electoral districts, votes polled and names of members of the House of Commons elected at the 34th general election, November 21, 1988, are given in Table 19.4. Table 19.5 indicates voters on the lists and votes polled at federal general elections in 1979, 1980, 1984 and 1988.

19.4 The judiciary

Parliament is empowered by Section 101 of the Constitution Act, 1867, to provide for the constitution, maintenance and organization of a general court of appeal for Canada and for the establishment of any additional courts for the better administration of Canada's laws. Under this provision Parliament has established the Supreme Court of Canada, the Federal Court of Canada, the Tax Court of Canada, and certain

miscellaneous courts. An account of the judiciary and legal system of Canada is presented in Chapter 20.

19.5 Federal government administration

For a description of federal financial operations and control, see Chapter 22, Government finance.

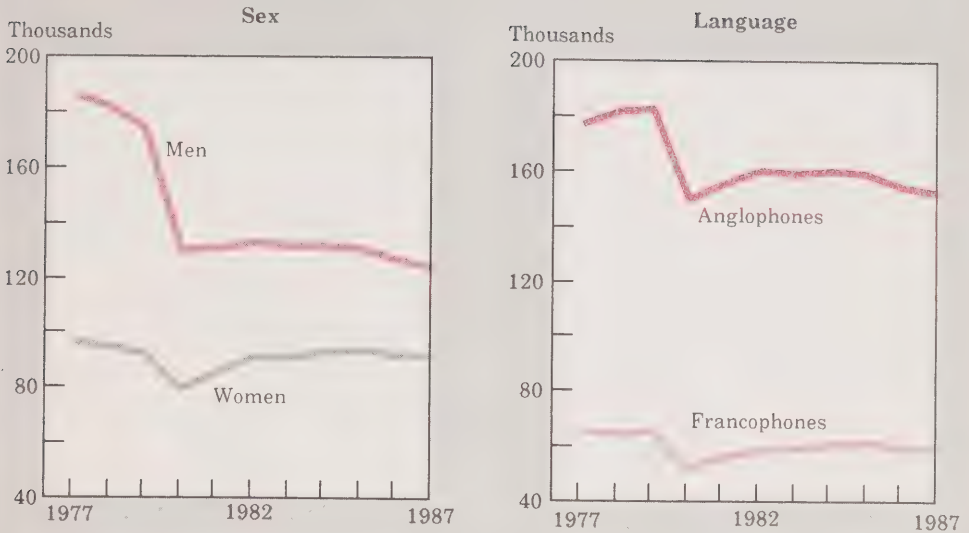
19.5.1 Government employment

Treasury Board, a Cabinet committee (a statutory committee of the Queen's Privy Council) has overall responsibility for human resources management in the federal public service. It is responsible for the development, application and evaluation of personnel policies, systems and methods to ensure that the people needed to carry out programs effectively are obtained at competitive wages and deployed efficiently with due consideration for the individual and collective rights of employees.

The Board is responsible for ensuring that fair and effective management, in the planning, acquisition, utilization and disposal of key administrative resources, prevails throughout the public service. It guides departmental managers in the efficient and effective management of key resources in support of departmental programs, promotes the efficient operations of departments and the effectiveness of federal programs, and ensures fair information practices in government.

Under provisions of the Financial Administration Act, Treasury Board is responsible for the development of policies, regulations, standards and programs in the areas of classification and pay, organization and establishments, conditions of employment, collective bargaining and staff relations, human resources training, development and utilization, pensions, insurance and other employee benefits and allowances, other human resources management matters affecting the public service, and official languages in its capacity as an employer. The temporary assignment program is administered by Treasury Board. The Board is also responsible for organization development, human resources planning, the determination and evaluation of training needs and education programs, employment equity, equal pay for work of equal value initiatives, and standards governing health and safety. It evaluates the results from personnel policies, systems and programs and advises departments and agencies on the design and implementation of systems to improve human resources management.

Chart 19.2

Public service employees

Note: 1981 figures exclude the Post Office; 1980 figures have been revised to be comparable with 1981.

Responsibility for classification has, with a few exceptions, been delegated to departments, subject to a monitoring process. Delegation of responsibility for the administration of pay has been delegated to departments. Benefit programs and allowance policies, approved by the Board, are designed to give departments maximum responsibility for administration.

Treasury Board is the employer for those public servants who work in the departments and agencies described in Schedule 1, Part I of the Public Service Staff Relations Act (PSSRA). The majority of these employees have their compensation and other terms and conditions of employment established through collective bargaining conducted under the provisions of the PSSRA. Treasury Board Secretariat negotiates collective agreements with 14 unions representing 78 bargaining units. Labour relations specialists and managers in departments are advised on the administration of the collective agreements, union-management consultation, the exclusion of managerial and confidential personnel from bargaining units, the designation of employees for reasons of public safety or security, grievance administration and references to adjudication, and employer-employee relations training.

There is also liaison with the so-called separate employers (those agencies such as the National Film Board and the National Research Council of Canada described in Schedule 1, Part II of the PSSRA). Treasury Board also establishes compensation for members of the Canadian Forces and the Royal Canadian Mounted Police.

The Board is also responsible for administration and consultation with unions through the National Joint Council on policies such as those pertaining to protective clothing and uniforms, government business travel, and relocation, which form part of collective agreements. It is responsible for those administrative policies which are general or cross-functional in nature such as contracting, risk management, incentive awards, and project management, including major Crown projects. Other policy areas dealt with include claims against the Crown, ex gratia payments, contracting-out science and technology, intellectual property, and common services.

The Board develops policy guidelines for public service pension, insurance and related programs, co-ordinates their administration and recommends periodic revisions. It negotiates reciprocal pension transfer agreements with other public and private employers.

A new Official Languages Act came into force on September 15, 1988. This legislation gives effect to the official languages guarantees of the Canadian Charter of Rights and Freedoms. The Act assigns to the Treasury Board responsibility for the general direction and co-ordination of the policies and programs of the Government of Canada, in all federal institutions other than Parliament, relating to service to the public in the official language of its choice as well as to language of work and the participation of English-speaking and French-speaking Canadians in those institutions.

The Board is also responsible for the formulation, implementation and review of all policies on information management. This covers the management of information technology, including all aspects of information systems, electronic data processing, telecommunications and office support systems. It is also responsible for information management practices, including those relating to Access to Information and Privacy, information collection, security of information and other assets, records management, communications, and the Federal Identity Program.

The Board has issued a policy to test innovative ways to deliver government services and achieve better value for money, including the most efficient organization approach and comparison with private sector alternative sources of supply.

Public Service Commission. The Public Service Commission of Canada is an independent agency accountable to Parliament for the administration of the Public Service Employment Act. Under this Act, the Commission must ensure that the merit principle is upheld in all public service appointments. It must also guarantee that high standards are maintained in the service, consistent with adequate representation of the two official language groups, a bilingual capability to the extent prescribed by the government, equal employment and career development opportunities irrespective of race, national or ethnic origin, colour, religion, age, sex, marital status, family status, disability or conviction for an offence for which a pardon has been granted.

The Public Service Employment Act gives the Commission the exclusive right and authority to make appointments to and from within the public service. It also authorizes the Commission to delegate to deputy heads any of its powers, except those relating to appeals and inquiries. The Commission has delegated powers to make appointments in operational and administrative support categories; however, departments are

required to use Canada employment centres as their recruitment agency for appointments from outside the public service in the operational and administrative support categories. Appointing authority has also been delegated in the administrative and foreign service, technical, and scientific and professional categories under conditions which preserve the Commission's authority as central recruiting agency for the public service of Canada with a few exceptions, that is, those cases where a department is virtually the sole employer of a particular occupational specialty. The Commission ensures that appointments made under delegated authority comply with the law and Commission policies.

In recognition of affinity of work and for administrative reasons, public service positions have been aggregated in six broad occupational categories: management, scientific and professional, technical, administrative and foreign service, administrative support, and operational. The classification system divides these categories into a host of occupational groups, in which positions are similar in skills required and the work performed.

Appointments to public service positions are normally made from within the service, except when it may be in the best interests of the service to do otherwise. In an internal selection process, prospective candidates may be identified through an employee inventory, or may respond to a notice posted to advertise the position. The successful candidate is chosen by a selection board which examines all the candidates. Unsuccessful candidates may appeal the results of the competition. The Public Service Commission maintains an employee inventory for positions at senior management and senior executive levels.

Under other circumstances, it may be decided to transfer employees between positions. In exceptional instances, an employee may be promoted without competition; other public servants have the right to appeal such a staffing action. A right to appeal also exists when a decision has been taken to recommend an employee's demotion or release because of incompetence or incapacity.

Competitions for positions in the public service are announced through the news media and posters displayed on public notice boards of Canada Employment Centres, Public Service Commission of Canada offices, major post offices and other selected locations.

The Commission establishes boards to decide on appeals against appointments made within the public service and against release or

demotion for incompetence or incapacity and to make recommendations in the revocation of appointments improperly made under delegated authority. It is also responsible for investigating allegations of irregularities in staffing and matters of personal harassment in the workplace. It investigates allegations of political activity by public servants and approves employees' requests for leave to be candidates in federal, provincial or territorial elections.

In order that departments may serve the public in accordance with the Official Languages Act, the Commission ensures that employees appointed are qualified to meet the linguistic requirements of positions and, in situations where they do not qualify, that incumbents or winners of competitions for bilingual positions receive training in their second official language. Part-time language training is also available to other public servants.

The Commission also operates staff development and training programs and assists public service departments and agencies in implementing training and development plans.

Native peoples. The federal Department of Indian Affairs and Northern Development is responsible for meeting statutory obligations to Indians registered under the Indian Act and for programs approved specifically for them.

Canada's 28,000 Inuit, most of whom live in Northwest Territories, Quebec and Labrador, are also the concern of Indian and Northern Affairs Canada, the government of Northwest Territories and provincial governments.

See Appendix E, the Constitution Act, 1982, for additional information.

19.5.2 Departments, boards, commissions and corporations

In Canada, the work of the federal government is generally conducted by departments, branches of departments, departmental corporations, corporations owned or controlled by the Government of Canada and special boards, commissions and advisory bodies.

Departments and departmental corporations perform work of a governmental nature that entails administrative, research, supervisory, advisory or regulatory functions, while Crown corporations often operate in a competitive or commercial environment.

Examples of organizations which have departmental status are the Department of Agriculture and the Department of Finance. These departments are listed in Schedule I of the Financial Administration Act (FAA). Departmental

corporations such as the National Research Council are listed in Schedule II.

Federal Crown corporations are listed in Schedule III of the FAA. The corporations are wholly owned by the Crown. Amendments to the FAA, which were promulgated on September 1, 1984, established, through Part X of that Act, a comprehensive control and accountability framework for Crown corporations. Part X of the FAA makes Crown corporations accountable to Parliament, through a Minister, and provides a system of accountability and control. In addition to Part X of the FAA, many Crown corporations are subject to the provisions of their own enabling legislation.

There are eight Crown corporations which are exempted from the control and accountability framework of Part X because of the need for those corporations to operate with greater autonomy. (These include the Bank of Canada, Canadian Wheat Board, Canadian Institute for International Peace and Security, International Development Research Centre, and cultural corporations such as the Canadian Broadcasting Corporation.)

Other corporate interests of Canada include joint and mixed enterprises. These are companies in which the federal government owns share capital in partnership with other governments and/or private sector organizations. (These include Telesat Canada and Canarctic Shipping Company Limited.) The government's ability to direct and influence the activities of those corporations in which it has less than 100% ownership is limited because the rights of other shareholders must be respected. Where such investments are held by Crown corporations, however, the FAA requires those Crown corporations be held accountable for their investments.

In addition, there are other entities — entities without share capital for which the Government of Canada has a right to appoint members to the board of directors. (These include harbour commissions, Hockey Canada Inc. and the Canada Grains Council.) The government's ability to direct and influence the activities of these entities is dictated by whatever agreements governed their establishment.

Appendix A of this edition provides descriptions of departments, Crown corporations, boards, commissions, offices and agencies of the federal government.

19.5.3 Applied titles

The use of applied titles in place of the legal titles of government organizations, for example,

Labour Canada, is prescribed by the Federal Identity Program (FIP) which requires the use of such titles in conjunction with symbols to ensure a consistent visual identity throughout the Government of Canada. The titles are used on all applications of the program, for example, signs, vehicles, stationery and advertising but are not to be used on legal applications, such as contracts or documents used in court proceedings.

Treasury Board has central responsibility for the program and the policy, which is issued as part of the administrative policy manual. Each organization is responsible for implementing the policy.

19.6 Provincial and territorial governments

The former BNA Act provided for the federal union of three British North American provinces — Canada (Ontario and Quebec), Nova Scotia and New Brunswick — into one dominion under the name Canada. The Act made provision for possible future entry into Confederation of the colonies or provinces of Newfoundland, Prince Edward Island and British Columbia, and of Rupert's Land and the North-Western Territory, a vast expanse then held by the Hudson's Bay Company. In 1870, the company surrendered its territories to the British Crown which transferred them to Canada. In exchange, it received a cash payment from the Canadian government of £300,000, one-twentieth of the lands in the southern part, "the fertile belt", of the territory, and designated blocks of land around its trading posts. From this new territory was carved Manitoba in 1870, much smaller at its inception than now, and later, in 1905, Saskatchewan and Alberta. British Columbia entered Confederation in 1871, on condition that a railway linking it with Eastern Canada be commenced within two years. In 1873, Prince Edward Island entered the union and in 1949 Newfoundland joined.

19.6.1 Provincial governments

In each of the provinces, the Queen is represented by a lieutenant-governor appointed by the Governor General-in-Council. The lieutenant-governor acts on the advice and with the assistance of his ministry or an executive council which is responsible to the legislature and resigns office under circumstances similar to those described concerning the federal government.

The legislature of each province is unicameral, consisting of the lieutenant-governor and a

legislative assembly. The assembly is elected by the people for a statutory term of five years but may be dissolved within that period by the lieutenant-governor on the advice of the premier of the province.

Sections 92, 93 and 95 of the Constitution Act, 1867 (Br. Stat. 1867, c.3 and amendments) assign legislative authority in certain areas to the provincial governments.

Details regarding qualifications and disqualifications of the franchise are contained in the elections act of each province. In general, every person at a specified age who is a Canadian citizen or (in certain provinces) other British subject, who complies with certain residence requirements in the province and the electoral district of polling and who falls under no statutory disqualifications, is entitled to vote. At age 18, persons can vote in all provinces and territories.

Executive councils of the provinces and the commissioner and legislative assembly of the Yukon and Northwest Territories are given in Appendix C.

Newfoundland. The government of Newfoundland has a lieutenant-governor, an executive council and a house of assembly made up of 52 members. On September 5, 1986, the Honourable James A. McGrath, PC became the lieutenant-governor. The 41st legislature in the history of Newfoundland and the 13th since Confederation, elected April 20, 1989 comprised 21 Progressive Conservatives and 31 Liberals.

Prince Edward Island. The government of Prince Edward Island consists of a lieutenant-governor, an executive council and a legislative assembly. The Honourable Lloyd G. MacPhail was sworn in as lieutenant-governor on August 1, 1985. The legislative assembly has 32 members from 16 electoral districts. Each district elects two representatives. The 58th general assembly, elected in Prince Edward Island, May 29, 1989, consisted of 30 Liberals and 2 Progressive Conservatives.

Nova Scotia. The government of Nova Scotia consists of a lieutenant-governor, acting with the advice of the executive council of the province and the legislature, known as the house of assembly, which has 52 members. The Honourable Alan R. Abraham, CD, was lieutenant-governor as of January 31, 1984. A general election took place on September 6, 1988, when 28 Progressive Conservatives, 21 Liberals, two New Democrats and one Independent were elected.

New Brunswick. The government of New Brunswick has a lieutenant-governor, an executive council and a legislative assembly. The Honourable Gilbert Finn, CD, was sworn in on August 20, 1987, as lieutenant-governor. The legislature in 1988 had 58 members, all of whom were Liberals.

Quebec. In Quebec, legislative and executive powers are vested in the National Assembly and an executive council. As the representative of the Crown, the lieutenant-governor plays a role in the functioning of both branches. The Honourable Gilles Lamontagne assumed that office on March 28, 1984. The election for the 33rd legislature was held December 2, 1985. Party standings were: 99 Liberals and 23 Parti Québécois.

Ontario. The government of Ontario consists of a lieutenant-governor, an executive council and a legislative assembly. The Honourable Lincoln M. Alexander took office as lieutenant-governor on September 20, 1985. A legislative assembly composed of 130 members was elected September 10, 1987. As of June 29, 1988, there were 94 Liberals, 18 New Democrats, 17 Progressive Conservatives and one vacancy.

In addition to the regular ministries are the following provincial agencies: the Niagara Parks Commission, the Ontario Municipal Board, Ontario Hydro, the St. Lawrence Parks Commission, the Ontario Northland Transportation Commission, the Liquor Control Board and the Liquor Licence Board.

Manitoba. In addition to a lieutenant-governor, Manitoba has an executive council composed of 16 members and a legislative assembly of 57 members. The Honourable George Johnson was appointed lieutenant-governor on November 14, 1986. In the general election of April 26, 1988, 25 Progressive Conservatives, 20 Liberals and 12 New Democrats were elected to the 34th legislature.

Saskatchewan. The government of Saskatchewan consists of a lieutenant-governor, an executive council and a legislative assembly. The Honourable Sylvia O. Fedoruk is the lieutenant-governor. The statutory number of members of the legislative assembly is 64. As of October 15, 1988, Saskatchewan had 37 Progressive Conservatives, 26 New Democrats and one vacancy in the legislative assembly.

Alberta. In addition to the lieutenant-governor (since January 22, 1985, the Honourable Helen Hunley), the government of Alberta is composed of an executive council and a legislative assembly of 83 members. On March 20, 1989, 59 Progressive

Conservatives, 16 members of the New Democratic Party and eight Liberals were elected to form the 22nd legislature.

British Columbia. The government of British Columbia consists of a lieutenant-governor, an executive council and a legislative assembly of 69 members. On September 9, 1988, the Honourable David C. Lam took office as lieutenant-governor. As at October 1, 1988 the assembly consisted of 45 Social Credit members, 22 New Democrats, one Independent and one vacancy.

19.6.2 Territorial governments

Yukon. The constitution for the government of the Yukon is based on two federal statutes: the Yukon Act (RSC 1970, c.Y-2) and the Government Organization Act (SC 1966, c.25). The Yukon Act provides for a commissioner as head of government and for a legislative body called the Yukon legislative assembly. Under the Government Organization Act, the Minister of Indian and Northern Affairs Canada is responsible (with the Governor-in-Council) for directing the commissioner in the administration of the Yukon.

In 1979, the Minister of Indian and Northern Affairs Canada brought in changes which altered the executive level of the Yukon government. It now consists of five elected members of the Yukon legislative assembly who are appointed to an executive council or cabinet by the commissioner, upon the recommendation of the government leader. The commissioner is still the senior representative of Indian and Northern Affairs Canada in the Yukon and performs duties similar to those of a lieutenant-governor in relation to the legislature. The executive council members are assigned portfolio responsibilities by the government leader.

The Yukon Act delineates the jurisdiction of the legislative assembly. It is like those of the provincial assemblies and has jurisdictional control of all matters of a local nature except that the federal government, through Indian and Northern Affairs Canada, retains control of the Yukon's renewable and non-renewable natural resources. Jurisdiction for the territory's wildlife rests with the Yukon government. The legislature is called into session by the commissioner on the advice of the majority party leader.

Legislative authority for the Yukon is vested in the Commissioner-in-Council. All bills must be approved by council and assented to by the commissioner before becoming law. As in other jurisdictions, the Governor-in-Council may

disallow any ordinance within one year. Ordinances are printed on a sessional basis and consolidated annually.

Amendments to the Yukon Act, passed by Parliament, allowed for an expansion of council membership from 12 to 16 in 1978 and provided for future expansion to 20.

Yukon legislative assembly members are elected for four-year terms. The assembly usually meets twice a year in Whitehorse.

Northwest Territories. The Northwest Territories Act (RSC 1970, c.N-22) provides for an executive, legislative and judicial structure. The commissioner is the chief executive officer, appointed by the federal government and responsible for the administration of the Northwest Territories under the direction of the Minister of Indian Affairs and Northern Development.

The legislative assembly of the Northwest Territories has legislative powers similar to those of a provincial legislature. The Northwest Territories Act gives the assembly authority to legislate in most areas of government activity, except for natural resources other than game, forestry and fire suppression; these are reserved to the federal government. Legislation must receive three readings and have the assent of the commissioner. The federal government may disallow any act within one year.

The legislative assembly consists of 24 members, elected for four years. It meets twice a year, usually for six weeks at a winter session and for a shorter fall session. A third short spring or summer session also may be held. The assembly does not, at present, operate on a party system. Its members attempt to make decisions and provide advice to the executive council by consensus. The legislative assembly selects its speaker from among its members. A majority of the members of the legislative assembly are of aboriginal descent.

The executive council is the senior decision-making body of the government of the Northwest Territories. The commissioner continues to be the formal head of government. The legislative assembly nominates up to eight of its members to the executive council and chooses one as government leader and chairman of the executive council. Each elected executive council member is responsible for one or more departments of the territorial government. Executive members are collectively responsible for decisions on policy and programs, for relations with federal and provincial governments and for the general conduct of the government in the Northwest Territories.

The federal Justice Minister is the Attorney General of the Northwest Territories under the Criminal Code of Canada, with responsibility for criminal but not for civil matters or the constitution or organization of the courts. Law enforcement is provided by the Royal Canadian Mounted Police.

19.7 Local government

Local government in Canada comprises all government entities, created by the provinces and territories, to provide services that can be more effectively discharged through local control. Broadly speaking, local government services are identified in terms of their main functions: protection, transportation, environmental health, environmental development, health and welfare services, recreation, community services and education. Local government may also operate such facilities as public transit and the supply of electricity and gas. Education is normally administered separately from the other local functions.

Under the Constitution Act, 1867, local government was made a responsibility of the provincial legislatures, a responsibility extended to the territories when their governments were constituted in their present forms. The unit of local government, apart from the school board, is usually the municipality which is incorporated as a city, town, village, township or other designation. The powers and responsibilities of municipalities are delegated to them by statutes passed by their respective provincial or territorial legislatures.

An increasing number of special agencies or joint boards and commissions have been created to provide certain services for groups of municipalities. Local government revenue has been supplemented by provincial grants, either unconditional or for specific purposes. Certain functions, traditionally assigned to local government, have been assumed in whole or in part by the provinces. Besides encouraging the amalgamation of small units, the provinces have established new levels of local government to provide services which can be better discharged at a regional level. Second-tier local governments now cover the whole of British Columbia and much of Ontario. In Quebec, legislation recognizes two levels of municipal organization: local and regional.

The major revenue source available to local government is the taxation of real property, supplemented by taxation of personal property, businesses and amusements. Revenue is also derived from licences, permits, rents, concessions,

franchises, fines and surplus funds from municipal enterprises.

Newfoundland has 313 incorporated municipalities comprised of three cities, one metropolitan area, 167 towns and 142 communities. Cities, towns and communities have elected councils. The metropolitan area has an appointed board. The local service districts have elected committees.

St. John's, the capital of Newfoundland, was one of the earliest sites of New World settlement. The St. John's metropolitan area covers the area adjoining and surrounding the city of St. John's.

Prince Edward Island has one city and eight towns, all incorporated. In addition, there are 77 communities (formerly styled as villages or community improvement committees) which provide limited local services in rural areas. Charlottetown, the capital, was first incorporated in 1855. Five regional administrative units provide elementary and secondary education for the province, with the individual boards elected by residents of the units.

Nova Scotia is divided into 18 counties; 12 constitute separate municipalities and the remaining six are each divided into two municipalities, making a total of 24 rural municipalities. Within these municipalities are 26 incorporated villages that provide limited services. Three cities and 39 towns, although located within counties or districts, are entirely independent of them, except as to joint expenditures. All parts of the province are municipally organized.

Halifax, capital of Nova Scotia, and part of the largest metropolitan area in the Atlantic provinces, is governed by an elected council, consisting of a mayor and 12 aldermen, one for each of 12 wards.

New Brunswick. The municipal organization, in New Brunswick, includes six cities, 25 towns and 83 villages. The remainder of the province is not municipally organized and is administered by the provincial government. There are 282 unincorporated local service districts which are not municipal organizations but were established to provide services of a municipal nature.

Fredericton is the capital of New Brunswick and the third largest city. Saint John is the largest city and Moncton is second.

Quebec. The more densely settled areas comprising about one-third of the province are municipally organized; the remainder is governed by the province which administers the James Bay and Northern Quebec Agreement.

Since 1981, Quebec has been establishing regional county municipalities for cities, towns

and municipalities not organized into urban communities (Quebec and Montreal) or regional communities (Outaouais). The primary responsibility of a regional county municipality is to develop a planning scheme, that is, to define planning objectives and determine land use for its entire territory. It may also be responsible for real estate assessment and for operating a waste management system, to name two examples. The province currently has 95 regional county municipalities.

In 1988, there were 258 towns and cities, 1,220 municipalities governed by the municipal code, 22 other local municipalities (Cree, Naskapi and northern villages), 38 Indian reserves and 118 unorganized territories. Major municipal consolidations began in 1965 with the fusion of the 14 municipalities on Île Jésus into the new city of Laval. In 1970, the Montreal and Quebec Urban Communities and the Outaouais Regional Community were established with integration of municipal services to be staged gradually.

Quebec is the capital city and Montreal is the incorporated city with the largest population.

Ontario. In Ontario, slightly more than 10% of the area includes 95% of the total population and is municipally organized; the remainder is under direct provincial administration. The settled section is divided into one metropolitan municipality, 10 regional municipalities, one district municipality, 27 counties and 10 regional districts. There are 50 cities, including one borough, 145 towns, 119 villages, 478 townships and eight improvement districts. The Municipality of Metropolitan Toronto, in existence since January 1954, encompasses five cities and one borough and is responsible for assessments, police, water supply, sewerage, metropolitan road systems and planning. The regional municipalities of Durham, Haldimand-Norfolk, Halton, Hamilton-Wentworth, Niagara, Ottawa-Carleton, Peel, Sudbury, Waterloo and York have replaced county administrations and assumed certain responsibilities over all municipalities within their boundaries. The District Municipality of Muskoka has responsibilities, similar to those of the regional municipalities, over the reorganized municipalities of the former district of Muskoka. This form of regional government is contemplated in other areas. Each county, although an incorporated municipality, comprises the towns (with the exception of four separated towns), villages and townships within it. Some municipalities are located outside the counties in areas called districts. These districts in Western and Northern Ontario are not municipal entities.

Toronto, the capital of Ontario, had been the capital of Upper Canada before Confederation. North York is the second largest incorporated city in Ontario, followed in population size by Scarborough, Mississauga, Hamilton, Ottawa, the national capital and Etobicoke.

Manitoba has five cities, 35 towns, 39 villages and 105 rural municipalities. There are also 17 local government districts which perform the same general functions as municipalities. They are administered by administrators who act, in most districts, on the advice of elected councils, but are subject to the final authority of the minister of municipal affairs.

In Manitoba, the capital city of Winnipeg and 11 surrounding municipalities, after 12 years under the partial central authority of the Metropolitan Corporation of Greater Winnipeg, were amalgamated into a single city in January 1972.

Saskatchewan has 12 cities, 144 towns, 321 villages, 33 resort villages, 2 northern towns, 10 northern villages, 14 northern hamlets and 299 rural municipalities. Administration of the nine northern settlements is provided by the province, with the advice of local advisory committees.

Although Regina is the capital of Saskatchewan, Saskatoon is slightly larger in population.

Alberta has 15 cities, 108 towns, 172 villages, 20 municipal districts and 30 counties. The counties administer schools, in addition to municipal services. There are 19 improvement districts and three special areas administered by the Special Areas Board.

Edmonton, the capital, was incorporated in 1904. Calgary was founded in 1875 by the mounted police and incorporated as a city in 1893.

British Columbia. In 1967, the government of British Columbia instituted regional government. By January 1972, 28 regional districts had been established. These regional districts are assuming responsibility for certain services from municipalities within their boundaries as well as providing services to previously unorganized areas. There are 37 cities, 12 towns, 48 villages and 47 districts. Districts are mostly rural, although some adjacent to the principal cities of Vancouver and Victoria are largely urban in character. Unincorporated local districts have been set up to provide certain municipal services.

Victoria, the capital, on the southeastern tip of Vancouver Island, was incorporated in 1862. The largest city, Vancouver, was incorporated in 1886.

Yukon. There are two cities, two towns, and four villages in the Yukon. The cities, towns and villages have full municipal status and are responsible for their own taxation and administration. The Yukon government provides municipal services to the unorganized communities. The seat of government was moved from Dawson City to Whitehorse in 1953.

Northwest Territories includes one city, five towns, two villages, 30 hamlets and one settlement corporation. The hamlets, although incorporated, are developmental forms of local government. Yellowknife on the north arm of Great Slave Lake was named the capital in 1967.

Sources

19.1 – 19.4 Machinery of Government, Privy Council Office; Journals Branch, House of Commons; Law Branch, The Senate; Elections Canada.

19.5.1 Communications Division, Treasury Board; Public Affairs Directorate, Public Service Commission; Communications Branch, Department of Indian Affairs and Northern Development.

19.5.2 Crown Corporations Directorate, Department of Finance and Treasury Board of Canada.

19.5.3 Communications Division, Treasury Board.

19.6 Provincial and territorial governments.

19.7 Public Institutions Division, Statistics Canada; provincial and territorial governments.

FOR FURTHER READING _____**Selected publications from Statistics Canada**

- Federal Government Employment, quarterly. 72-004
- Provincial and Territorial Government Employment, quarterly. 72-007
- Local Government Employment, quarterly. 72-009
- Federal Government Employment in Metropolitan Areas, annual. 72-205
- Directory of Federal Government Scientific and Technological Establishments, annual. 88-206

More information about these publications is available from Statistics Canada. See Appendix F for a complete list of Statistics Canada offices.

TABLES

.. not available

... not appropriate or not applicable

— nil or zero

-- too small to be expressed

e estimate

p preliminary

r revised

certain tables may not add due to rounding

19.1 Duration and sessions of Parliaments, 1966-88

Order of Parliament	Session	Date of opening	Date of prorogation	Days of session	Sitting days of House of Commons	Date of election, writs returnable, dissolution, and length of Parliament ^{1,2}
27th Parliament	1st	Jan. 18, 1966	May 8, 1967	476 ⁶	250	Nov. 8, 1965 ³
	2nd	May 8, 1967	Apr. 23, 1968	352 ⁷	155	Dec. 9, 1965 ⁴ Apr. 23, 1968 ⁵ 867 days
28th Parliament	1st	Sept. 12, 1968	Oct. 22, 1969	406 ⁸	197	June 25, 1968 ³
	2nd	Oct. 23, 1969	Oct. 7, 1970	350 ⁹	155	July 25, 1968 ⁴
	3rd	Oct. 8, 1970	Feb. 16, 1972	497 ¹⁰	244	Sept. 1, 1972 ⁵
	4th	Feb. 17, 1972	Sept. 1, 1972	198 ¹¹	91	1,500 days
29th Parliament	1st	Jan. 4, 1973	Feb. 26, 1974	419 ¹²	206	Oct. 30, 1972 ³
	2nd	Feb. 27, 1974	May 9, 1974	72	50	Nov. 20, 1972 ⁴ May 9, 1974 ⁵ 536 days
30th Parliament	1st	Sept. 30, 1974	Oct. 12, 1976	744 ¹³	343	July 8, 1974 ³
	2nd	Oct. 12, 1976	Oct. 17, 1977	371 ¹⁴	175	July 31, 1974 ⁴
	3rd	Oct. 18, 1977	Oct. 10, 1978	358 ¹⁵	151	Mar. 26, 1979 ⁵
	4th	Oct. 11, 1978	Mar. 26, 1979	167 ¹⁶	98	1,700 days
31st Parliament	1st	Oct. 9, 1979	Dec. 14, 1979	67	49	May 22, 1979 ³ June 11, 1979 ⁴ Dec. 14, 1979 ⁵ 187 days
32nd Parliament	1st	Apr. 14, 1980	Nov. 30, 1983	591 ¹⁷	304	Feb. 18, 1980 ³
	2nd	Dec. 7, 1983	June 29, 1984	81	116	Mar. 10, 1980 ⁴ July 9, 1984 ⁵ 1,483 days
33rd Parliament	1st	Nov. 5, 1984	Aug. 28, 1986	662 ¹⁸	308	Sept. 4, 1984 ³
	2nd	Sept. 30, 1986 ¹⁹	Sept. 30, 1988	733 ²⁰	389	Sept. 24, 1984 ⁴ Oct. 1, 1988 ⁵ 1,469 days

¹ The ordinary legal limit of duration for each Parliament is five years.

² Duration of Parliament in days. The life of a Parliament is counted from the date of return of election writs to the date of dissolution, both days inclusive, BNA Act, Sect. 50 (Constitution Act, 1867).

³ Date of general election.

⁴ Writs returnable.

⁵ Dissolution of Parliament.

⁶ Includes Easter adjournment from Apr. 6, 1966 to Apr. 19, 1966; two summer adjournments from July 14, 1966 to Aug. 29, 1966 and Sept. 9, 1966 to Oct. 5, 1966; Christmas adjournment from Dec. 21, 1966 to Jan. 9, 1967; and Easter adjournment from Mar. 22, 1967 to Apr. 3, 1967.

⁷ Includes summer adjournment from July 7, 1967 to Sept. 25, 1967; Christmas adjournment from Dec. 21, 1967 to Jan. 22, 1968; and Easter (Liberal Convention) adjournment from Mar. 28, 1968 to Apr. 23, 1968.

⁸ Includes Christmas adjournment from Dec. 20, 1968 to Jan. 14, 1969; Easter adjournment from Apr. 2, 1969 to Apr. 14, 1969; and summer adjournment from July 25, 1969 to Oct. 22, 1969.

⁹ Includes Christmas adjournment from Dec. 19, 1969 to Jan. 12, 1970; Easter adjournment from Mar. 25, 1970 to Apr. 6, 1970; and summer adjournment from June 26, 1970 to Oct. 5, 1970.

¹⁰ Includes Christmas adjournment from Dec. 18, 1970 to Jan. 11, 1971; Easter adjournment from Apr. 7, 1971 to Apr. 19, 1971; summer adjournment from June 30, 1971 to Sept. 7, 1971; and Christmas adjournments from Dec. 23, 1971 to Dec. 28, 1971 and Dec. 31, 1971 to Jan. 12, 1972.

¹¹ Includes Easter adjournment from Mar. 29, 1972 to Apr. 13, 1972; and summer adjournment from July 7, 1972 to Aug. 31, 1972.

¹² Includes Easter adjournment from Apr. 19, 1973 to May 6, 1973; summer adjournments from July 27, 1973 to Aug. 30, 1973 and Sept. 21, 1973 to Oct. 15, 1973; and Christmas adjournments from Dec. 22, 1973 to Jan. 2, 1974 and Jan. 14, 1974 to Feb. 26, 1974.

¹³ Includes Christmas adjournment from Dec. 20, 1974 to Jan. 22, 1975; Easter adjournment from Mar. 27, 1975 to Apr. 7, 1975; summer adjournment from July 31, 1975 to Oct. 13, 1975; Christmas adjournment from Dec. 20, 1975 to Jan. 26, 1976; Easter adjournment from Apr. 14, 1976 to Apr. 26, 1976; and summer adjournment from July 16, 1976 to Oct. 12, 1976.

¹⁴ Includes Christmas adjournment from Dec. 22, 1976 to Jan. 24, 1977; Easter adjournment from Apr. 6, 1977 to Apr. 18, 1977; and summer adjournments from July 25, 1977 to Aug. 4, 1977, Aug. 5, 1977 to Aug. 9, 1977 and Aug. 9, 1977 to Oct. 17, 1977.

¹⁵ Includes Christmas adjournment from Dec. 20, 1977 to Jan. 23, 1978; Easter adjournment from Mar. 22, 1978 to Apr. 3, 1978; and summer adjournment from June 30, 1978 to Oct. 10, 1978.

¹⁶ Includes Christmas adjournment from Dec. 22, 1978 to Jan. 23, 1979.

¹⁷ Includes summer adjournment from July 22, 1980 to Oct. 6, 1980; Christmas adjournment from Dec. 19, 1980 to Jan. 12, 1981; Easter adjournments from Apr. 15, 1981 to Apr. 21, 1981 and Apr. 23, 1981 to May 21, 1981; summer adjournment from July 17, 1981 to Oct. 14, 1981; and Christmas adjournment from Dec. 18, 1981 to Jan. 25, 1982.

¹⁸ Includes Christmas adjournment from Dec. 22, 1984 to Jan. 13, 1985; Easter adjournment from Apr. 4, 1985 to Apr. 14, 1985; summer adjournment from June 29, 1985 to Sept. 8, 1985; Christmas adjournment from Dec. 21, 1985 to Jan. 12, 1986; Easter adjournment from Mar. 27, 1986 to Apr. 6, 1986; and summer adjournment from June 28 to prorogation on Aug. 28, 1986.

¹⁹ Sept. 30, 1986, Election of the Speaker; Oct. 1, 1986, Speech from the Throne.

²⁰ Includes Christmas adjournment from Dec. 19, 1986 to Jan. 19, 1987; Easter adjournment from Apr. 15, 1987 to Apr. 27, 1987; summer adjournment from June 30, 1987 to Sept. 14, 1987; Christmas adjournment from Dec. 18, 1987 to Jan. 18, 1988; Easter adjournment from Mar. 30, 1988 to Apr. 11, 1988; summer adjournments from July 28, 1988 to Aug. 10, 1988 and Sept. 1, 1988 to Sept. 13, 1988.

19.2 Representation in the Senate since Confederation, 1867

Province or territory	1867	1870	1871	1873	1882	1887	1892	1903	1905	1915- 1948	1949- 1974	1975- 1988
Ontario	24	24	24	24	24	24	24	24	24	24	24	24
Quebec	24	24	24	24	24	24	24	24	24	24	24	24
Atlantic provinces	24	24	24	24	24	24	24	24	24	24	30	30
Nova Scotia	12	12	12	10	10	10	10	10	10	10	10	10
New Brunswick	12	12	12	10	10	10	10	10	10	10	10	10
Prince Edward Island	...	...	...	4	4	4	4	4	4	4	4	4
Newfoundland	...	...	...	...	...	...	...	...	...	...	6	6
Western provinces	...	2	5	5	6	8	9	11	15	24	24	24
Manitoba	...	2	2	2	3	3	4	4	4	6	6	6
British Columbia	...	...	3	3	3	3	3	3	3	6	6	6
Saskatchewan	...	...	...	...	...	...	...	...	...	6	6	6
Alberta	...	...	...	...	...	2	2	4	4	6	6	6
Territories	...	...	...	...	...	...	...	...	...	...	...	2
Yukon	...	...	...	...	...	...	...	...	...	...	...	1
Northwest Territories	...	...	...	...	...	...	...	...	...	...	...	1
Total	72	74	77	77	78	80	81	83	87	96	102	104

19.3 Representation in the House of Commons, as at federal general elections 1867-1988

Province or territory	1867	1872	1874 1878	1882	1887 1891	1896 1900	1904	1908 1911	1917 1921	1925 1926 1930	1935 1940 1945	1949	1953 1957 1958 1962 1963 1965	1968 1972 1974	1979 1980 1984	1988
Ontario	82	88	88	92	92	92	86	86	82	82	82	83	85	88	95	99
Quebec	65	65	65	65	65	65	65	65	65	65	65	73	75	74	75	75
Nova Scotia	19	21	21	21	21	20	18	18	16	14	12	13	12	11	11	11
New Brunswick	15	16	16	16	16	14	13	13	11	11	10	10	10	10	10	10
Manitoba	...	4	4	5	5	7	10	10	15	17	17	16	14	13	14	14
British Columbia	...	6	6	6	6	6	7	7	13	14	16	18	22	23	28	32
Prince Edward Island	...	...	6	6	6	5	4	4	4	4	4	4	4	4	4	4
Saskatchewan	...	...	...	...	4	4	10	10	16	21	21	20	17	13	14	14
Alberta	...	...	...	...	...	...	...	7	12	16	17	17	17	19	21	26
Yukon	...	...	...	...	...	...	1	1	1	1	1	1	1	1	1	1
Mackenzie River NWT ¹	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	2
Newfoundland	...	...	...	...	...	...	...	...	...	...	...	7	7	7	7	7
Total	181	200	206	211	215	213	214	221	235	245	245	262	265	264	282	295

¹ Electoral district of Northwest Territories in 1963, 1965, 1968, 1972 and 1974. Northwest Territories has been divided into two electoral districts since 1976.

19.4 Electoral districts, votes polled and names of members of the House of Commons as elected at the thirty-fourth general election, Nov. 21, 1988

Province and electoral district	Population, Census 1986	Total votes polled (incl. rejections)	Votes polled by member	Name of member	Party affili- ation ¹
NEWFOUNDLAND (7 members)					
Bonavista-Trinity-Conception	89,559	41,881	21,290	Fred Mifflin	Lib.
Burin-St. George's	84,325	38,736	18,527	Roger Simmons	Lib.
Gander-Grand Falls	85,946	36,650	20,314	George Baker	Lib.
Humber-St. Barbe-Baie Verte	82,592	39,445	26,259	Brian Tobin	Lib.
Labrador	31,318	13,398	7,126	Bill Rompkey	Lib.
St. John's East	104,416	49,095	21,503	Ross Reid	PC
St. John's West	89,525	39,650	24,194	John Crosbie	PC

19.4 Electoral districts, votes polled and names of members of the House of Commons as elected at the thirty-fourth general election, Nov. 21, 1988 (continued)

Province and electoral district	Population, Census 1986	Total votes polled (incl. rejections)	Votes polled by member	Name of member	Party affiliation ¹
PRINCE EDWARD ISLAND (4 members)					
Cardigan	29,049	18,276	9,325	Lawrence MacAulay	Lib.
Egmont	33,736	19,232	10,158	Joe McGuire	Lib.
Hillsborough	30,473	20,599	8,897	George Proud	Lib.
Malpeque	29,248	18,221	9,381	Catherine Calbeck	Lib.
NOVA SCOTIA (11 members)					
Annapolis Valley-Hants	82,860	47,315	20,763	Pat Nowlan	PC
Cape Breton-East Richmond	64,485	34,653	22,786	David Dingwall	Lib.
Cape Breton Highlands-Canso	66,214	40,183	20,318	Francis LeBlanc	Lib.
Cape Breton-The Sydneys	70,249	38,085	23,931	Russell MacLellan	Lib.
Central Nova	71,222	39,523	19,065	Elmer MacKay	PC
Cumberland-Colchester	78,455	44,398	20,384	Bill Casey	PC
Dartmouth	87,118	48,015	21,958	Ron MacDonald	Lib.
Halifax	92,787	52,884	22,470	Mary Clancy	Lib.
Halifax West	87,351	55,736	24,815	Howard Crosby	PC
South Shore	76,200	40,281	18,547	Peter McCreath	PC
South West Nova	70,501	42,450	21,062	Coline Campbell	Lib.
NEW BRUNSWICK (10 members)					
Beauséjour	65,473	39,318	22,650	Fernand Robichaud	Lib.
Carleton-Charlotte	64,060	34,225	16,026	Greg Thompson	PC
Fredericton	80,731	48,001	20,494	J.W. Bird	PC
Fundy-Royal	77,353	45,701	21,129	Bob Corbett	PC
Gloucester	71,760	39,815	20,251	Douglas Young	Lib.
Madawaska-Victoria	57,247	31,229	14,747	Bernard Valcourt	PC
Miramichi	57,165	28,076	14,073	Maurice Dionne	Lib.
Moncton	85,649	51,257	23,823	George Rideout	Lib.
Restigouche	54,989	31,610	15,252	Guy Arseneault	Lib.
Saint John	81,976	39,599	16,798	G.S. Merrithew	PC
QUEBEC (75 members)					
Abitibi	86,312	40,292	22,254	Guy St-Julien	PC
Argenteuil-Papineau	72,039	42,157	23,076	Lise Bourgault	PC
Beauce	93,233	53,855	36,212	Gilles Bernier	PC
Beauharnois-Salaberry	87,675	51,345	29,149	Jean-Guy Hudon	PC
Bellechasse	85,382	43,361	27,621	Pierre Blais	PC
Berthier-Montcalm	89,706	54,341	29,370	Robert de Cotret	PC
Blainville-Deux-Montagnes	106,877	68,476	40,810	Monique Landry	PC
Bonaventure-Îles-de-la-Madeleine	52,046	26,897	15,491	Darryl Gray	PC
Brome-Missisquoi	75,671	43,112	22,540	Gabrielle Bertrand	PC
Chambly	88,686	56,186	25,770	Richard Grisé	PC
Champlain	83,963	48,125	29,788	Michel Champagne	PC
Charlesbourg	105,401	61,728	35,549	Monique Tardif	PC
Charlevoix	82,964	42,911	33,730	Brian Mulroney ²	PC
Châteauguay	87,985	52,023	22,439	Ricardo Lopez	PC
Chicoutimi	85,667	45,102	30,699	André Harvey	PC
Drummond	77,492	46,119	23,703	Jean-Guy Guibault	PC
Frontenac	66,677	35,782	25,872	Marcel Masse	PC
Gaspé	62,986	28,998	16,298	Charles-Eugène Marin	PC
Gatineau-La Lièvre	100,582	55,136	23,507	Mark Assad	Lib.
Hull-Aylmer	82,920	47,397	23,218	Gilles Rocheleau	Lib.
Joliette	90,378	53,789	27,908	Gaby Larrivée	PC
Jonquière	68,610	34,854	21,523	Jean-Pierre Blackburn	PC
Kamouraska-Rivière-du-Loup	73,747	35,825	20,388	André Plourde	PC
Lac-Saint-Jean	69,229	35,720	23,112	Lucien Bouchard	PC
Langelier	95,226	55,176	24,555	Gilles Loiselle	PC
La Prairie	91,918	59,773	30,834	Fernand Jourdenais	PC
Laurentides	97,227	58,276	31,000	Jacques Vien	PC
Lévis	95,128	60,723	33,673	Gabriel Fontaine	PC
Longueuil	105,756	57,001	29,054	Nic Leblanc	PC
Lotbinière	90,381	52,124	26,585	Maurice Tremblay	PC
Louis-Hébert	90,206	64,038	37,329	Suzanne Duplessis	PC
Manicouagan	69,488	28,480	17,126	Charles Langlois	PC
Matapédia-Matane	66,324	32,783	15,962	Jean-Luc Joncas	PC
Mégantic-Compton-Stanstead	74,483	39,561	23,246	François Gérin	PC
Montmorency-Orléans	89,540	52,338	30,578	Charles DeBlais	PC
Pontiac-Gatineau-Labelle	77,291	39,208	20,522	Barry Moore	PC
Portneuf	72,532	43,065	23,893	Marc Ferland	PC
Québec-Est	93,853	54,857	29,493	Marcel Tremblay	PC
Richelieu	82,088	48,328	32,104	Louis Plamondon	PC
Richmond-Wolfe	78,226	42,028	19,451	Yvon Côté	PC
Rimouski-Témiscouata	73,747	39,121	23,789	Monique Vézina	PC

19.4 Electoral districts, votes polled and names of members of the House of Commons as elected at the thirty-fourth general election, Nov. 21, 1988 (continued)

Province and electoral district	Population, Census 1986	Total votes polled (incl. rejections)	Votes polled by member	Name of member	Party affiliation ¹
QUEBEC (concluded)					
Roberval	76,020	35,641	26,717	Benoît Bouchard	PC
Saint-Hubert	103,801	54,415	25,573	Pierrette Venne	PC
Saint-Hyacinthe-Bagot	83,531	50,116	25,267	Andrée Champagne	PC
Saint-Jean	80,023	51,342	27,685	Clément Couture	PC
Saint-Maurice	74,880	43,870	18,741	Denis Pronovost	PC
Shefford	82,425	51,874	23,943	Jean Lapierre	Lib.
Sherbrooke	88,273	56,100	34,538	Jean Charest	PC
Témiscamingue	81,448	42,164	19,106	Gabriel Desjardins	PC
Terrebonne	103,892	70,308	35,345	Jean-Marc Robitaille	PC
Trois-Rivières	73,549	44,602	29,370	Pierre Vincent	PC
Verchères	76,990	50,715	32,317	Marcel Danis	PC
Island of Montreal and Île-Jésus					
Ahuntsic	89,383	52,928	21,748	Nicole Roy-Arcelin	PC
Anjou-Rivière-des-Prairies	83,760	55,935	27,451	Jean Corbeil	PC
Bourassa	94,914	45,682	18,979	Marie Gibeau	PC
Duvernay	89,426	58,180	33,426	Vincent Della Noce	PC
Hochelaga-Maisonneuve	85,325	43,296	16,246	Allan Koury	PC
Lachine-Lac-Saint-Louis	99,442	58,304	25,870	Bob Layton	PC
LaSalle-Émard	96,622	53,489	23,394	Paul Martin	Lib.
Laurier-Sainte-Marie	86,861	42,298	15,956	Jean-Claude Malépart	Lib.
Laval	88,915	57,353	26,858	Guy Ricard	PC
Laval-des-Rapides	89,994	55,217	27,955	Jacques Tétreault	PC
Mercier	101,685	59,077	30,804	Carole Jacques	PC
Mount Royal	91,479	46,305	27,354	Sheila Finestone	Lib.
Notre-Dame-de-Grâce	81,491	42,714	22,928	Warren Allmand	Lib.
Outremont	96,707	46,972	17,597	J.-Pierre Hogue	PC
Papineau-Saint-Michel	94,080	41,214	18,122	André Ouellet	Lib.
Pierrefonds-Dollard	93,753	56,201	27,532	Gerry Weiner	PC
Rosemont	99,383	47,311	17,127	Benoît Tremblay	PC
Saint-Denis	92,722	43,846	19,928	Marcel Prud'homme	Lib.
Saint-Henri-Westmount	82,924	40,937	16,600	David Berger	Lib.
Saint-Laurent	86,686	45,400	20,418	Shirley Maheu	Lib.
Saint-Léonard	95,104	47,832	23,014	Alfonso Gagliano	Lib.
Vaudreuil	84,824	55,806	30,392	Pierre Cadieux	PC
Verdun-Saint-Paul	88,449	46,596	20,113	Gilbert Chartrand	PC
ONTARIO (99 members)					
Algoma	68,322	31,814	16,766	Maurice Foster	Lib.
Brampton	88,220	57,719	29,473	John McDermid	PC
Brampton-Malton	94,268	40,252	16,427	Harry Chadwick	PC
Brant	92,271	47,925	19,633	Derek Blackburn	NDP
Bruce-Grey	89,721	48,705	19,748	Gus Mitges	PC
Burlington	94,050	50,862	26,293	Bill Kempling	PC
Cambridge	96,827	51,345	20,578	Pat Sobeski	Lib.
Carleton-Gloucester	79,706	64,641	30,925	Eugène Bellemare	Lib.
Cochrane-Superior	65,927	30,027	11,954	Réginald Bélair	Lib.
Durham	87,393	52,209	24,065	Ross Stevenson	PC
Elgin	80,885	40,911	15,694	Ken Monteith	PC
Erie	76,653	39,570	15,063	Girve Freiz	PC
Essex-Kent	76,266	38,132	18,634	Jerry Pickard	Lib.
Essex-Windsor	86,213	43,235	18,926	Steven Langdon	NDP
Glengarry-Prescott-Russell	80,903	50,604	35,280	Don Boudria	Lib.
Guelph-Wellington	93,120	60,025	25,721	Bill Winegard	PC
Haldimand-Norfolk	94,910	44,872	16,921	Bob Speller	Lib.
Halton-Peel	88,407	52,661	28,521	Garth Turner	PC
Hamilton East	85,807	38,029	18,632	Sheila Copps	Lib.
Hamilton Mountain	92,566	52,029	16,934	Beth Phinney	Lib.
Hamilton-Wentworth	87,580	57,365	23,876	Geoff Scott	PC
Hamilton West	88,873	44,558	16,598	Stan Keyes	Lib.
Hastings-Frontenac-Lennox and Addington	78,943	43,471	17,247	Bill Vankoughnet	PC
Huron-Bruce	89,574	47,318	20,042	Murray Cardiff	PC
Kenora-Rainy River	74,612	35,026	13,313	Robert Nault	Lib.
Kent	80,936	39,852	15,835	Rex Crawford	Lib.
Kingston and the Islands	89,121	57,457	23,121	Peter Milliken	Lib.
Kitchener	98,956	54,122	22,400	John Reimer	PC
Lambton-Middlesex	76,223	42,051	17,312	Ralph Ferguson	Lib.
Lanark-Carleton	84,892	57,430	27,379	Paul Dick	PC
Leeds-Grenville	80,941	46,838	20,141	Jim Jordan	Lib.
Lincoln	86,612	52,410	19,955	Shirley Martin	PC
London East	93,862	52,368	19,547	Joe Fontana	Lib.
London-Middlesex	89,632	48,672	18,534	Terry Clifford	PC
London West	96,542	62,757	28,392	Tom Hockin	PC
Markham	90,594	69,592	36,673	Bill Attewell	PC
Mississauga East	94,564	51,084	23,055	Albina Guarnieri	Lib.
Mississauga South	94,907	47,623	24,482	Don Blenkarn	PC
Mississauga West	92,127	69,148	32,992	Bob Horner	PC
Nepean	84,361	56,980	26,632	Beryl Gaffney	Lib.
Niagara Falls	83,146	44,040	17,077	Rob Nicholson	PC

19.4 Electoral districts, votes polled and names of members of the House of Commons as elected at the thirty-fourth general election, Nov. 21, 1988 (continued)

Province and electoral district	Population, Census 1986	Total votes polled (incl. rejections)	Votes polled by member	Name of member	Party affiliation ¹
ONTARIO (concluded)					
Nickel Belt	78,971	39,238	17,418	John Rodriguez	NDP
Nipissing	72,431	37,989	15,488	Bob Wood	Lib.
Northumberland	80,079	45,719	18,600	Christine Stewart	Lib.
Oakville-Milton	98,071	65,395	35,033	Otto Jelinek	PC
Ontario	95,724	72,031	34,969	René Soetens	PC
Oshawa	91,263	42,022	18,410	Ed Broadbent ²	NDP
Ottawa Centre	83,254	50,294	18,096	Mac Harb	Lib.
Ottawa South	86,059	55,028	27,740	John Manley	Lib.
Ottawa-Vanier	87,527	48,821	28,581	Jean-Robert Gauthier	Lib.
Ottawa West	79,570	47,941	23,470	Marlene Catterall	Lib.
Oxford	91,444	49,270	19,367	Bruce Hallday	PC
Parry Sound-Muskoka	71,898	40,217	17,232	Stan Darling	PC
Perth-Wellington-Waterloo	90,712	46,270	17,974	Harry Brightwell	PC
Peterborough	93,343	55,455	22,492	Bill Domm	PC
Prince Edward-Hastings	87,215	45,803	19,559	Lyle Vanclicf	Lib.
Renfrew	88,915	47,322	25,558	Len Hopkins	Lib.
St. Catharines	92,990	48,625	19,623	Ken Atkinson	PC
Sarnia-Lambton	83,951	43,173	19,304	Ken James	PC
Sault Ste Marie	78,077	41,757	14,595	Steve Butland	NDP
Simcoe Centre	90,798	52,148	23,504	Edna Anderson	PC
Simcoe North	86,913	50,217	21,847	Doug Lewis	PC
Stormont-Dundas	80,157	43,331	19,698	Bob Kilger	Lib.
Sudbury	81,672	43,007	17,879	Diane Marleau	Lib.
Thunder Bay-Atikokan	68,110	36,907	13,132	Iain Angus	NDP
Thunder Bay-Nipigon	70,292	38,435	15,346	Joe Comuzzi	Lib.
Timiskaming	60,523	30,986	11,230	John MacDougall	PC
Timmins-Chapleau	65,680	31,995	11,622	Cid Samson	NDP
Victoria-Haliburton	77,583	47,950	22,270	Bill Scott	PC
Waterloo	92,018	60,227	26,949	Walter McLean	PC
Welland-St. Catharines-Thorold	85,506	47,730	17,878	Gilbert Parent	Lib.
Wellington-Grey-Dufferin-Simcoe	91,679	51,508	26,066	Perrin Beatty	PC
Windsor-Lake St. Clair	85,759	43,956	18,915	Howard McCurdy	NDP
Windsor West	91,743	43,045	23,796	Herb Gray	Lib.
York North	93,734	89,029	37,513	Maurizio Bevilacqua	Lib.
York-Simcoe	94,618	57,221	26,732	John Cole	PC
Metropolitan Toronto					
Beaches-Woodbine	94,441	45,337	15,760	Neil Young	NDP
Broadview-Greenwood	92,314	41,285	15,808	Dennis Mills	Lib.
Davenport	95,861	28,764	16,436	Charles Caccia	Lib.
Don Valley East	91,994	42,396	18,719	Alan Redway	PC
Don Valley North	89,869	40,848	17,551	Barbara Greene	PC
Don Valley West	94,347	52,478	27,683	John Bosley	PC
Eglinton-Lawrence	97,365	41,208	20,446	Joseph Volpe	Lib.
Etobicoke Centre	91,152	51,002	24,338	Michael Wilson	PC
Etobicoke-Lakeshore	95,514	46,732	20,405	Patrick Boyer	PC
Etobicoke North	96,309	50,503	22,618	Roy MacLaren	Lib.
Parkdale-High Park	92,005	45,874	19,614	Jesse Flis	Lib.
Rosedale	94,399	55,565	22,704	David MacDonald	PC
St. Paul's	96,624	53,543	25,206	Barbara McDougall	PC
Scarborough-Agincourt	87,987	44,446	19,459	Jim Karygiannis	Lib.
Scarborough Centre	90,905	43,107	17,247	Pauline Browes	PC
Scarborough East	87,875	42,375	18,149	Bob Hicks	PC
Scarborough-Rouge River	86,058	49,054	22,767	Derek Lee	Lib.
Scarborough West	90,528	42,197	15,363	Tom Wappel	Lib.
Trinity-Spadina	94,291	41,107	15,565	Dan Heap	NDP
Willowdale	94,415	52,083	24,230	Jim Peterson	Lib.
York Centre	92,558	42,325	24,962	Bob Kaplan	Lib.
York South-Weston	93,747	40,078	21,111	John Nunziata	Lib.
York West	96,837	34,300	19,936	Sergio Marchi	Lib.
MANITOBA (14 members)					
Brandon-Souris	71,610	37,329	17,372	Lee Clark	PC
Churchill	65,254	25,336	14,168	Rod Murphy	NDP
Dauphin-Swan River	70,917	35,793	14,719	Brian White	PC
Lisgar-Marquette	68,135	32,560	17,484	Charlie Mayer	PC
Portage-Interlake	69,186	34,513	13,307	Felix Holtmann	PC
Provencher	70,097	34,426	19,000	Jake Epp	PC
St. Boniface	74,095	47,079	24,117	Ronald Duhamel	Lib.
Selkirk	73,743	46,945	17,813	David Bjornson	PC
Winnipeg North	77,543	43,096	16,375	Rey Pagtakhan	Lib.
Winnipeg North Centre	79,823	29,904	12,104	David Walker	Lib.
Winnipeg St. James	76,031	41,863	18,695	John Harvard	Lib.
Winnipeg South	73,433	50,038	22,865	Dorothy Dobbie	PC
Winnipeg South Centre	77,977	45,214	26,191	Lloyd Axworthy	Lib.
Winnipeg Transcona	78,397	42,475	17,361	Bill Blaikie	NDP

19.4 Electoral districts, votes polled and names of members of the House of Commons as elected at the thirty-fourth general election, Nov. 21, 1988 (continued)

Province and electoral district	Population, Census 1986	Total votes polled (incl. rejections)	Votes polled by member	Name of member	Party affiliation ¹
SASKATCHEWAN (14 members)					
Kindersley-Lloydminster	66,631	33,673	15,089	Bill McKnight	PC
Mackenzie	67,396	34,423	15,931	Vic Althouse	NDP
Moose Jaw-Lake Centre	69,225	37,905	15,916	Rod Laporte	NDP
Prince Albert-Churchill River	69,352	31,953	17,915	Ray Funk	NDP
Regina-Lumsden	69,230	37,688	21,593	Les Benjamin	NDP
Regina-Qu'Appelle	67,060	34,678	18,608	Simon de Jong	NDP
Regina-Wascana	70,527	45,357	15,339	Larry Schneider	PC
Saskatoon-Clark's Crossing	69,109	41,666	19,889	Chris Axworthy	NDP
Saskatoon-Dundurn	70,796	43,993	20,986	Ron Fisher	NDP
Saskatoon-Humboldt	67,391	41,204	17,703	Stan Hovdebo	NDP
Souris-Moose Mountain	70,760	36,981	17,200	Len Gustafson	PC
Swift Current-Maple Creek-Assiniboia	70,264	36,347	15,944	Geoff Wilson	PC
The Battlefords-Meadow Lake	71,775	34,332	14,516	Len Taylor	NDP
Yorkton-Melville	68,797	36,485	18,523	Lorne Nystrom	NDP
ALBERTA (26 members)					
Athabasca	72,501	32,792	17,248	Jack Shields	PC
Beaver River	68,200	31,243	13,768	John Dahmer ⁴	PC
Calgary Centre	104,787	54,102	28,794	Harvie Andre	PC
Calgary North	99,258	61,284	35,212	Al Johnson	PC
Calgary Northeast	93,075	47,587	25,890	Alex Kindy	PC
Calgary Southeast	102,838	52,069	32,477	Lee Richardson	PC
Calgary Southwest	94,531	62,199	40,397	Barbara Sparrow	PC
Calgary West	98,319	54,963	32,025	Jim Hawkes	PC
Crowfoot	70,059	35,694	19,079	Arnold Malone	PC
Edmonton East	94,084	39,714	15,051	Ross Harvey	NDP
Edmonton North	95,689	47,942	19,045	Steve Paproski	PC
Edmonton Northwest	83,230	39,109	15,556	Murray Dorin	PC
Edmonton Southeast	87,348	48,676	23,597	David Kilgour	PC
Edmonton Southwest	89,417	54,230	28,931	Jim Edwards	PC
Edmonton-Strathcona	92,224	54,289	18,088	Scott Thorkelson	PC
Elk Island	75,314	40,442	19,447	Brian O'Kurley	PC
Lethbridge	91,025	46,024	26,750	Blaine Thacker	PC
Macleod	66,014	33,770	16,989	Ken Hughes	PC
Medicine Hat	88,048	42,829	25,114	Bob Porter	PC
Peace River	99,542	43,231	23,363	Albert Cooper	PC
Red Deer	86,971	45,597	24,187	Doug Fee	PC
St. Albert	75,603	42,805	19,945	Walter Van De Walle	PC
Vegreville	73,542	37,772	24,561	Don Mazankowski	PC
Wetaskiwin	79,128	40,147	20,090	Willie Littlechild	PC
Wild Rose	74,567	41,769	20,054	Louise Feltham	PC
Yellowhead	82,410	40,307	17,847	Joe Clark	PC
BRITISH COLUMBIA (32 members)					
Burnaby-Kingsway	99,949	58,764	25,150	Svend Robinson	NDP
Capilano-Howe Sound	72,773	43,587	20,219	Mary Collins	PC
Cariboo-Chilcotin	71,682	31,573	11,525	Dave Worthy	PC
Comox-Alberni	87,182	49,631	21,128	Robert Skelly	NDP
Delta	77,420	44,848	19,755	Stan Wilbee	PC
Esquimalt-Juan de Fuca	75,813	44,655	22,644	David Barrett	NDP
Fraser Valley East	77,252	43,135	16,631	Ross Belsher	PC
Fraser Valley West	78,480	51,694	23,565	Robert Wenman	PC
Kamloops	84,149	41,477	21,513	Nelson Riis	NDP
Kootenay East	71,412	34,703	14,904	Sid Parker	NDP
Kootenay West-Revelstoke	73,567	35,411	16,381	Lyle Kristiansen	NDP
Mission-Coquitlam	82,708	51,103	22,259	Joy Langan	NDP
Nanaimo-Cowichan	99,107	55,631	27,177	David Stupich	NDP
New Westminster-Burnaby	99,749	57,577	24,933	Dawn Black	NDP
North Island-Powell River	85,936	42,839	22,179	Raymond Skelly	NDP
North Vancouver	80,755	49,510	18,515	Chuck Cook	PC
Okanagan Centre	85,237	52,664	19,485	Al Horning	PC
Okanagan-Shuswap	78,211	43,414	18,749	Lyle MacWilliam	NDP
Okanagan-Similkameen-Merritt	77,244	43,465	16,694	Jack Whittaker	NDP
Port Moody-Coquitlam	83,959	54,383	23,871	Ian Waddell	NDP
Prince George-Bulkley Valley	87,992	37,505	14,248	Brian Gardiner	NDP
Prince George-Peace River	85,626	35,371	13,903	Frank Oberle	PC
Richmond	96,154	58,515	25,559	Tom Siddon	PC
Saanich-Gulf Islands	92,551	65,807	23,168	Lynn Hunter	NDP
Skeena	77,697	32,108	16,815	Jim Fulton	NDP
Surrey North	90,110	54,281	19,940	Jim Karpoff	NDP
Surrey-White Rock	84,469	60,866	26,320	Benno Friesen	PC
Vancouver Centre	99,262	64,041	23,620	Kim Campbell	PC
Vancouver East	96,841	40,054	20,108	Margaret Mitchell	NDP

19.4 Electoral districts, votes polled and names of members of the House of Commons as elected at the thirty-fourth general election, Nov. 21, 1988 (concluded)

Province and electoral district	Population, Census 1986	Total votes polled (incl. rejections)	Votes polled by member	Name of member	Party affiliation ¹
BRITISH COLUMBIA (concluded)					
Vancouver Quadra	99,677	55,360	24,021	John Turner ²	Lib.
Vancouver South	98,789	50,891	21,222	John Fraser ³	PC
Victoria	92,714	59,367	22,399	John Brewin	NDP
YUKON (1 member)					
Yukon	23,153	12,875	6,594	Audrey McLaughlin	NDP
NORTHWEST TERRITORIES (2 members)					
Nunatsiak	16,973	8,535	3,356	Jack Anawak	Lib.
Western Arctic	28,768	12,915	5,415	Ethel Blondin	Lib.

¹ Party standings as a result of the general election, Nov. 21, 1988: Progressive Conservative 169, Liberal 83, New Democratic 43.

² Leader of a political party.

³ Speaker of the House of Commons, as elected by the House of Commons on Dec. 12, 1988.

⁴ Following the death of John Dahmer on Nov. 26, 1988, a by-election was held. Deborah C. Grey (Reform Party) filled the vacancy.

19.5 Voters on the lists and votes polled at the federal general elections of 1979, 1980, 1984 and 1988

Province or territory	1979	1980	1984	1988
Voters on the lists				
Newfoundland	338,730	346,281	370,219	384,236
Prince Edward Island	80,332	83,976	87,215	89,546
Nova Scotia	567,648	592,992	613,964	644,353
New Brunswick	456,707	473,972	491,169	508,741
Quebec	4,281,669	4,395,389	4,575,493	4,740,091
Ontario	5,328,123	5,597,683	5,882,320	6,309,375
Manitoba	670,098	687,702	704,585	729,281
Saskatchewan	619,144	639,649	673,289	675,160
Alberta	1,249,688	1,315,770	1,479,675	1,557,669
British Columbia	1,604,890	1,718,562	1,853,110	1,954,040
Yukon ¹	13,785	14,046	15,056	16,396
Northwest Territories	24,183	24,394	28,916	30,113
Total	15,234,997	15,890,416	16,775,011	17,639,001
Votes polled				
Newfoundland	205,080	206,130	242,491	258,855
Prince Edward Island	65,964	67,507	73,801	76,328
Nova Scotia	434,625	431,061	462,885	483,523
New Brunswick	342,919	341,212	379,850	388,831
Quebec	3,270,827	3,018,501	3,485,815	3,624,451
Ontario	4,191,809	4,054,194	4,461,416	4,732,398
Manitoba	518,572	481,546	516,053	546,571
Saskatchewan	493,706	461,359	524,566	526,685
Alberta	860,701	803,904	1,022,274	1,170,586
British Columbia	1,208,398	1,223,821	1,437,904	1,544,230
Yukon ¹	10,403	9,912	11,731	12,875
Northwest Territories	16,933	16,398	19,638	21,450
Total	11,619,937	11,115,545	12,638,424	13,386,783

Note: For every province the number of 'voters on the lists' includes Canadian Forces and Public Service electors, but does not include dependent electors or veteran electors.

¹ Electoral district of Yukon.

19.6 Provinces and territories of Canada, dates of admission to Confederation, legislative processes by which admission was effected, present area and seat of government

Province, territory or district	Date of admission or creation	Legislative process	Present area km ²	Seat of provincial or territorial government
Ontario ¹	July 1, 1867	Act of Imperial Parliament – Constitution Act, 1867 (formerly The British North America Act, 1867) (Br. Stat. 1867, c.3) and Imperial Order in Council, May 22, 1867	1 068 580	Toronto
Quebec ²	July 1, 1867		1 540 680	Quebec
Nova Scotia	July 1, 1867		55 490	Halifax
New Brunswick	July 1, 1867		73 440	Fredericton
Manitoba ³	July 15, 1870	Manitoba Act, 1870 (SC 1870, c.3) and Imperial Order in Council, June 23, 1870	649 950	Winnipeg
British Columbia	July 20, 1871	Imperial Order in Council, May 16, 1871	947 800	Victoria
Prince Edward Island	July 1, 1873	Imperial Order in Council, June 26, 1873	5 660	Charlottetown
Saskatchewan ⁴	Sept. 1, 1905	Saskatchewan Act (SC 1905, c.42)	652 330	Regina
Alberta ⁴	Sept. 1, 1905	Alberta Act (SC 1905, c.3)	661 190	Edmonton
Newfoundland	Mar. 31, 1949	Newfoundland Act (formerly The British North America Act, 1949) (Br. Stat. 1949, c.22)	405 720	St. John's
Northwest Territories ⁵	July 15, 1870	Act of Imperial Parliament-Rupert's Land Act, 1868 (Br. Stat. 1868, c.105) and Imperial Order in Council, June 23, 1870	3 426 320	Yellowknife
Mackenzie ⁶	Jan. 1, 1920	Order in Council, Mar. 16, 1918	1 382 740	Whitehorse
Keewatin ⁶	Jan. 1, 1920		600 590	
Franklin ⁶	Jan. 1, 1920		1 422 990	
Yukon Territory ⁷	June 13, 1898	Yukon Territory Act, 1898 (SC 1898, c.6)	483 450	
Canada			9 970 610 ⁸	

¹ The area of Ontario was extended by the Ontario Boundaries Extension Act, 1912 (SC 1912, c.40).

² Extended by Quebec Boundaries Extension Act, 1912 (SC 1912, c.45).

³ Extended by the Extension of Boundaries Act of Manitoba, 1881 and the Manitoba Boundaries Extension Act, 1912 (SC 1912, c.32).

⁴ Saskatchewan and Alberta created as provinces in 1905 from the area formerly comprised in the provisional districts of Assiniboia, Athabaska, Alberta and Saskatchewan established May 17, 1882 by minute of Canadian Privy Council concurred in by Dominion Parliament and Order in Council, Oct. 2, 1895.

⁵ By an Imperial Order in Council passed on June 23, 1870 pursuant to the Rupert's Land Act, 1868 (Br. Stat. 1868, c.105), the former territories of the Hudson's Bay Company known as Rupert's Land and the North-Western Territory were transferred to Canada effective July 15, 1870. These territories were designated as the North-West Territories by the Act of SC 1869, c.3, and as the Northwest Territories by RSC 1906, c.62. By Imperial Order in Council of July 31, 1880 (effective Sept. 1, 1880), all British territories and possessions in North America not already included within Canada and all islands adjacent thereto (with the exception of the Colony of Newfoundland and its dependencies) were annexed to Canada and these additional territories were formally included in the North-West Territories by SC 1905, c.27. The province of Manitoba was formed out of a portion of the territories by the Manitoba Act, 1870 (SC 1870, c.3) and a further portion was added to Manitoba in 1881 by SC 1881, c.14. The provinces of Alberta and Saskatchewan were formed out of portions of the territories in 1905 and in 1912 other portions were added to Manitoba, Ontario and Quebec.

⁶ By SC 1876, c.21, a separate district to be known as the District of Keewatin was established and provision was made for the local government thereof. The Act was expressed to come into force by proclamation. It provided that portions of the District might be re-annexed to the North-West Territories by proclamation; in 1886 a portion of the District of Keewatin was re-annexed and in 1905 the entire Keewatin District was re-annexed. The Act of 1876 was never proclaimed. By Order in Council of May 8, 1882 the provisional districts of Assiniboia, Saskatchewan, Alberta and Athabaska were created for the convenience of settlers and for postal purposes. By Order in Council of Oct. 2, 1895 the further provisional districts of Ungava, Franklin, Mackenzie and Yukon were created. The boundaries of these provisional districts were re-defined by Order in Council of Dec. 18, 1897. Subsequently the Yukon Territory was formed, the provinces of Alberta and Saskatchewan were created and other portions of the territories were annexed to Quebec, Ontario and Manitoba. By Order in Council dated Mar. 16, 1918 (effective Jan. 1, 1920) the remaining portions of the North-west Territories were divided into three provisional districts known as Mackenzie, Keewatin and Franklin.

⁷ The provisional district of Yukon established in 1895 was created a judicial district of the North-West Territories by proclamation issued pursuant to Sect. 51 of the North-West Territories Act (RSC 1886, c.50) on Aug. 16, 1897 and, by the Yukon Territory Act (SC 1898, c.6), was declared to be a separate territory.

⁸ Recalculated figures 1981.

19.7 Number of municipalities classified by type and size group, by province, as at Jan. 1, 1988

Year, type and size group	Nfld.	PEI	NS	NB	Que.	Ont.	Man.	Sask.	Alta.	BC	YT	NWT	Canada
POPULATION SIZE GROUP (1986 Census)													
Unitary municipalities													
100,000 and over	—	—	2	—	4	18	1	2	2	4	—	—	33
50,000 - 99,999	1	—	1	2	16	14	—	—	—	10	—	—	44
10,000 - 49,999	4	1	18	4	80	81	4	7	18	29	1	1	248
Under 10,000	165	85	45	108	1,400	679	179	812	325	101	7	7	3,913
Total	170	86	66	114	1,500	792	184	821	345	144	8	8	4,238
1988													
TYPE													
Regional municipalities													
Metropolitan and regional municipalities ¹	—	—	—	—	3	12	—	—	—	—	—	—	15
Counties and regional districts	—	—	—	—	95	27	—	—	—	28	—	—	150
Unitary municipalities	170	86	66	114	1,500	792	184	821	345	144	8	8	4,238

19.7 Number of municipalities classified by type and size group, by province, as at Jan. 1, 1988 (concluded)

Year, type and size group	Nfld.	PEI	NS	NB	Que.	Ont.	Man.	Sask.	Alta.	BC	YT	NWT	Canada
TYPE (concluded)													
Cities ²	3	1	3	6	65	50	5	12	15	37	2	1	200
Towns	167	8	39	25	193	145	35	146	108	12	2	5	885
Villages	—	—	—	83	233	119	39	364	172	48	4	2	1,064
Rural municipalities ³	—	77	24	—	1,009	478	105	299	50	47	—	—	2,089
Quasi-municipalities ⁴	143	—	—	—	—	8	17	14	19	—	—	30	231
Total	313	86	66	114	1,598	839	201	835	364	172	8	38	4,634

¹ Includes urban communities in Quebec; and Metropolitan Toronto, regional municipalities and the district municipality of Muskoka in Ontario.

² Includes the borough of East York.

³ Includes municipalities in Nova Scotia; parishes, townships, united townships and municipalities without designation in Quebec; townships in Ontario; rural municipalities in Manitoba and Saskatchewan; municipal districts and counties in Alberta; and districts in British Columbia.

⁴ Includes local government communities and the metropolitan area in Newfoundland; improvement districts in Ontario and Alberta; local government districts in Manitoba; and hamlets in Northwest Territories and Saskatchewan.

19.8 Public service employees, by department, sex and language group, 1987

Department	Men		Women		Anglophones		Francophones		Total
	No.	%	No.	%	No.	%	No.	%	
Agriculture	7,589	70.7	3,144	29.3	8,313	77.5	2,414	22.5	10,733
Bureau of Pensions Advocates	37	28.9	91	71.1	95	74.8	32	25.2	128
Canada Labour Relations Board	30	35.7	54	64.3	34	40.5	50	59.5	84
Canadian Aviation Safety Board	108	60.0	72	40.0	125	69.4	55	30.6	180
Canadian Grain Commission	566	75.1	188	24.9	705	93.5	49	6.5	754
Canadian Human Rights Commission	61	38.1	99	61.9	100	62.9	59	37.1	160
Canadian Intergovernmental Conference Secretariat	8	36.4	14	63.6	4	18.2	18	81.8	22
Canadian International Development Agency	588	50.0	587	50.0	510	43.4	664	56.6	1,175
Canadian Pension Commission	52	24.8	158	75.2	177	85.5	30	14.5	210
Canadian Radio-television and Telecommunications Commission	188	48.2	202	51.8	190	48.8	199	51.2	390
Civil Aviation Tribunal	1	20.0	4	80.0	2	50.0	2	50.0	5
Communications	1,418	60.9	912	39.1	1,549	66.5	780	33.5	2,330
Consumer and Corporate Affairs	1,266	57.3	942	42.7	1,378	62.4	830	37.6	2,208
Correctional Service of Canada	7,536	72.0	2,930	28.0	6,939	66.3	3,521	33.7	10,466
Elections Canada	32	56.1	25	43.9	10	17.5	47	82.5	57
Employment and Immigration	8,688	36.6	15,047	63.4	15,488	65.4	8,181	34.6	23,735
Energy, Mines and Resources	3,125	66.3	1,587	33.7	3,544	75.3	1,165	24.7	4,712
Environment	6,661	72.1	2,573	27.9	7,325	79.6	1,881	20.4	9,234
External Affairs	2,513	60.4	1,645	39.6	2,950	71.0	1,205	29.0	4,158
Federal Court	78	38.0	127	62.0	97	47.3	108	52.7	205
Federal-Provincial Relations Office	25	47.2	28	52.8	27	50.9	26	49.1	53
Finance	419	52.6	377	47.4	540	67.8	256	32.2	796
Fisheries and Oceans	3,976	73.8	1,408	26.2	4,593	85.5	781	14.5	5,384
Immigration Appeal Board	34	28.3	86	71.7	71	59.2	49	40.8	120
Indian Affairs and Northern Development	2,050	45.1	2,498	54.9	3,832	84.3	711	15.7	4,548
International Joint Commission	21	53.8	18	46.2	23	95.8	1	4.2	39
Investment Canada	48	43.6	62	56.4	79	71.8	31	28.2	110
Justice	628	42.0	866	58.0	991	66.5	499	33.5	1,494
Labour	427	50.3	422	49.7	569	67.1	279	32.9	849
Law Reform Commission of Canada	8	22.2	28	77.8	10	27.8	26	72.2	36
National Archives of Canada	421	55.4	339	44.6	479	63.0	281	37.0	760
National Defence (civilian)	21,906	67.2	10,697	32.8	25,971	79.8	6,564	20.2	32,603
National Energy Board	212	61.3	134	38.7	270	78.3	75	21.7	346
National Farm Products Marketing Council	10	45.5	12	54.5	10	45.5	12	54.5	22
National Health and Welfare	3,068	35.4	5,595	64.6	6,641	77.0	1,985	23.0	8,663
National Library of Canada	149	29.5	356	70.5	318	63.0	187	37.0	505
National Museums of Canada	521	55.8	413	44.2	625	66.9	309	33.1	934
National Parole Board	66	24.9	199	75.1	157	59.2	108	40.8	265
National Revenue (Customs and Excise)	5,242	55.6	4,187	44.4	6,895	73.2	2,524	26.8	9,429
National Revenue (Taxation)	8,897	50.2	8,825	49.8	12,892	72.8	4,825	27.2	17,722
National Transportation Agency of Canada	384	57.1	289	42.9	447	66.4	226	33.6	673
Office of Privatization and Regulatory Affairs	20	33.9	39	66.1	35	59.3	24	40.7	59
Office of the Commissioner for Federal Judicial Affairs	12	38.7	19	61.3	11	35.5	20	64.5	31
Office of the Commissioner of Official Languages	61	41.5	86	58.5	38	25.9	109	74.1	147

19.8 Public service employees, by department, sex and language group, 1987 (concluded)

Department	Men		Women		Anglophones		Francophones		Total
	No.	%	No.	%	No.	%	No.	%	
Office of the Coordinator, Status of Women	1	2.8	35	97.2	18	50.0	18	50.0	36
Office of the Grain Transportation Agency Administrator	14	53.8	12	46.2	25	96.2	1	3.8	26
Office of the Secretary to the Governor General	44	40.0	66	60.0	37	34.9	69	65.1	110
Office of the Superintendent of Financial Institutions	24	92.3	2	7.7	22	84.6	4	15.4	26
Offices of the Information and Privacy Commissioners	30	61.2	19	38.8	27	55.1	22	44.9	49
Privy Council Office	146	40.1	218	59.9	187	51.8	174	48.2	364
Public Service Commission	885	39.4	1,364	60.6	886	39.5	1,359	60.5	2,249
Public Service Staff Relations Board	61	45.9	72	54.1	56	44.8	69	55.2	133
Public Works	5,644	74.8	1,906	25.2	5,496	72.9	2,039	27.1	7,550
Regional Industrial Expansion Registry of the Competition Tribunal	1,392	52.6	1,255	47.4	1,790	67.8	852	32.2	2,647
Restrictive Trade Practices Commission	2	28.6	5	71.4	2	28.6	5	71.4	7
Royal Canadian Mounted Police (Public Service employees)	1	100.0	—	—	—	—	1	100.0	1
Science and Technology	619	18.7	2,699	81.3	2,661	80.3	654	19.7	3,318
Secretary of State of Canada	53	42.7	71	57.3	80	64.5	44	35.5	124
Solicitor General	978	33.7	1,925	66.3	932	32.1	1,971	67.9	2,903
Statistics Canada	102	43.0	135	57.0	161	69.1	72	30.9	237
Supply and Services	2,198	48.4	2,346	51.6	2,860	63.2	1,663	36.8	4,545
Supreme Court	4,599	48.8	4,828	51.2	5,546	58.9	3,873	41.1	9,427
Tariff Board	30	40.0	45	60.0	26	34.7	49	65.3	75
Tax Court of Canada	19	54.3	16	45.7	22	62.9	13	37.1	35
Transport	16	30.2	37	69.8	22	41.5	31	58.5	53
Treasury Board (Office of the Comptroller General)	15,934	79.2	4,183	20.8	15,531	77.3	4,562	22.7	20,117
Treasury Board (Secretariat)	100	69.9	43	30.1	108	75.5	35	24.5	143
Veterans Affairs	396	55.2	322	44.8	472	65.7	246	34.3	718
	1,352	40.9	1,957	59.1	1,945	58.8	1,361	41.2	3,309
Total	123,790	57.6	90,945	42.4	153,971	71.8	60,385	28.2	214,930¹

Note: The sums of the figures do not always equal the totals because, in a number of cases, the documents did not specify language group. For language group, percentage is based on the total of employees whose first official language is known.

¹ Total number of employees is drawn from the Common Government of Canada Population Reporting File, which is based on payroll information of the Department of Supply and Services on Dec. 31, 1987. Other population data are derived from the Commission's statistical file. There is consequently a slight difference between the sum of the figures and the total.

19.9 Public service employees, by geographic area (Canada and outside Canada), sex and language group, 1986 and 1987

Year and geographic area	Men		Women		Anglophones		Francophones		Total
	No.	%	No.	%	No.	%	No.	%	
1986									
Newfoundland	3,910	73.6	1,399	26.4	5,230	99.1	50	0.9	5,309
Prince Edward Island	1,196	57.9	870	42.1	1,881	91.5	175	8.5	2,066
Nova Scotia	9,980	71.8	3,920	28.2	13,370	96.5	480	3.5	13,900
New Brunswick	4,580	62.0	2,810	38.0	5,262	71.5	2,095	28.5	7,390
Quebec (Except NCR)	19,001	61.1	12,096	38.9	1,721	5.6	29,234	94.4	31,097
Quebec (NCR)	9,347	51.6	8,767	48.4	10,349	57.2	7,743	42.8	18,114
Ontario (NCR)	28,045	53.7	24,191	46.3	34,635	66.5	17,422	33.5	52,236
Ontario (Except NCR)	19,728	56.5	15,191	43.5	33,052	95.1	1,690	4.9	34,919
Manitoba	5,328	55.8	4,215	44.2	9,052	96.1	366	3.9	9,543
Saskatchewan	3,103	55.1	2,529	44.9	5,504	98.3	95	1.7	5,632
Alberta	7,510	58.0	5,448	42.0	12,607	97.8	285	2.2	12,958
British Columbia	12,357	61.2	7,818	38.8	19,833	98.6	282	1.4	20,175
Yukon	426	48.0	462	52.0	859	98.5	13	1.5	888
Northwest Territories	775	55.5	622	44.5	1,244	95.3	62	4.7	1,397
Outside Canada	1,198	76.2	375	23.8	1,149	73.0	424	27.0	1,573
Total	126,587	58.2	90,741	41.8	155,840	72.0	60,455	28.0	217,223 ¹

19.9 Public service employees, by geographic area (Canada and outside Canada), sex and language group, 1986 and 1987 (concluded)

Year and geographic area	Men		Women		Anglophones		Francophones		Total
	No.	%	No.	%	No.	%	No.	%	
1987									
Newfoundland	3,841	73.7	1,373	26.3	5,139	99.0	53	1.0	5,214
Prince Edward Island	1,168	57.7	855	42.3	1,869	92.6	149	7.4	2,023
Nova Scotia	9,550	71.0	3,906	29.0	12,960	96.5	464	3.5	13,456
New Brunswick	4,493	60.9	2,886	39.1	5,266	71.4	2,108	28.6	7,379
Quebec (Except NCR)	18,647	60.3	12,276	39.7	1,715	5.6	29,173	94.4	30,923
Quebec (NCR)	9,270	50.9	8,930	49.1	10,417	57.3	7,772	42.7	18,200
Ontario (NCR)	27,485	53.3	24,036	46.7	34,008	66.1	17,430	33.9	51,521
Ontario (Except NCR)	19,186	56.0	15,077	44.0	32,492	95.1	1,663	4.9	34,264
Manitoba	5,080	54.8	4,188	45.2	8,896	96.2	356	3.8	9,268
Saskatchewan	2,986	54.3	2,518	45.7	5,405	98.3	91	1.7	5,504
Alberta	7,387	57.5	5,470	42.5	12,547	97.7	297	2.3	12,857
British Columbia	12,213	60.7	7,915	39.3	19,802	98.6	291	1.4	20,128
Yukon	416	46.8	472	53.2	875	98.6	12	1.4	888
Northwest Territories	729	54.1	618	45.9	1,279	95.3	63	4.7	1,347
Outside Canada	1,207	75.4	393	24.6	1,175	73.4	425	26.6	1,600
Total	123,790	57.6	90,945	42.4	153,971	71.8	60,385	28.2	214,930 ¹

¹ See note and footnote to Table 19.8.

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- 19.2 Law Branch, The Senate.
- 19.3 – 19.5 Elections Canada.
- 19.6 Public Law Branch, Department of Justice.
- 19.7 Public Institutions Division, Statistics Canada.
- 19.8, 19.9 Public Affairs Directorate, Public Service Commission.

CHAPTER 20

JUDICIAL SYSTEM

CHAPTER 20

JUDICIAL SYSTEM

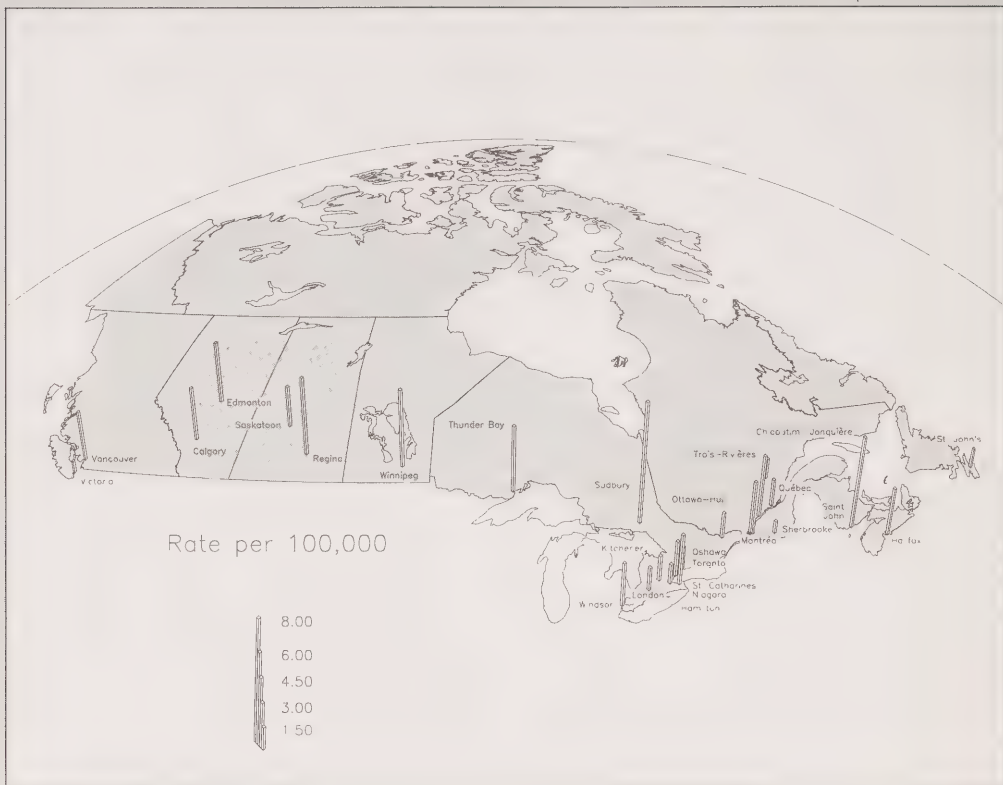
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HOMICIDE RATES, 1987

By Census Metropolitan Area

In 1987, there were 642 homicides in Canada, 2% fewer than the annual average number for the past 10 years.

Homicide rates were highest in Sudbury (7.46 offences per 100,000 population), followed by Saint John (5.74), and Regina and Winnipeg at 4.75 each. Cities with the lowest rate of homicide included Sherbrooke (0.76) and Victoria (0.77).

1987 data mapped by Census Metropolitan Area

Map produced by Geocartographics Division, Statistics Canada.

CHAPTER 20

JUDICIAL SYSTEM

20.1 Legal system

20.1.1 Common law and le droit civil

Common law as opposed to le droit civil contrasts two of the world's basic legal systems. Common law originated in England and is in force today in most Commonwealth countries, in the United States, and in the private law of nine Canadian provinces. Le droit civil originated in ancient Rome and prevails today in many Western European countries and in the private law of Quebec. In Canada, Quebec is a droit civil province in its private law only, whereas the other provinces are wholly common law.

Common law began its development in feudal England after the Norman conquest in 1066. It is a system of rules based on statutes and on precedents of previous court decisions. Thus the common law is made up of judicial decisions, and customary practices applied over the years to actual cases and situations.

Two cases are seldom exactly alike. Thus the court frequently needs to modify an earlier common law principle to reflect any new differences. In this way the law is able to grow and change with the times. Perhaps the most important way the law may be changed occurs when Parliament or a provincial legislature enacts a statute which overrides the common law dealing with the same point.

Le droit civil has its roots in the legal codes prepared centuries ago for the Roman Emperor Justinian and later for the Emperor Napoleon. The codification ordered by Napoleon became the model for the Civil Code of Quebec enacted in 1866.

Briefly, a civil code consists of relatively simple but comprehensive statements of rules which embody general principles of law. In theory, when a court is considering a case it does not consult the decisions of earlier courts as in a common law situation. Rather, it looks for the specific rule as found in an article of the civil code.

To contrast these two methods, consider this: the common law of negligence (carelessness

causing injury to another) is embedded in several thousands of court decisions taking up many thousands of pages in the law reports. The civil law of negligence of Quebec, on the other hand, can be found in just three brief articles of the civil code, beginning with this basic rule: "Every person capable of discerning right from wrong is responsible for the damage caused by his fault..." (Article 1053).

As would be expected, the reality is considerably different from the theory. The common law of negligence is relatively simple and understandable. A lawyer in a common law province would not normally have to do much research to find the rule that the courts would probably apply to some specific accident case. Nor is the rule in Article 1053 of the Quebec Civil Code as simple as might at first appear. What, for example, does 'fault' mean? In reality, the Quebec courts, which use the civil code, do resort to prior decisions and to the works of respected legal authors to help them determine the meaning of the code rules so that they may apply them to the cases they decide.

Thus decisions of similar cases turn out to be remarkably alike under both common law and civil law. Only the method by which the decision is reached is different.

20.1.2 Civil (non-criminal) law

Civil or non-criminal law is used to settle private disputes between individuals and other private parties. Civil cases (called civil suits) arise because two parties differ on some matter involving financial transactions, property, contracts, a private injury (called a tort) or civil rights.

Civil law in Canada is based on common law except in Quebec where it is governed by the civil code. Authority to pass legislation on civil law matters is divided between Parliament and the provincial and territorial legislatures. Legislatures of the provinces and territories have jurisdiction over contracts, torts and property laws. Both levels of government have power to make laws to regulate the activities of corporations as well as tax laws. Bankruptcy and insolvency, patents and

copyrights, and banks and banking laws fall under the jurisdiction of Parliament.

20.1.3 Human rights

In December 1981, a resolution on the constitution was adopted by Parliament. The Parliament of Britain ratified the request in 1982 and it was proclaimed in Canada as the Constitution Act, 1982, as Schedule II of the Canada Act. This Act includes the Canadian Charter of Rights and Freedoms, establishing for all Canadians protection of basic rights and freedoms essential to maintaining a free and democratic society and a united country. The explanation of the charter states that this charter applies to all governments, federal, provincial and territorial, and will provide protection of the following:

Fundamental freedoms which include freedom of conscience and religion, freedom of thought, belief, opinion and expression, including freedom of the press and other media of communication, freedom of peaceful assembly, and freedom of association;

Democratic rights giving Canadians the right to vote in all elections and to seek a seat in the House of Commons or in a legislative assembly;

Mobility rights which include the right to enter, remain in and leave Canada and the right to live and seek employment anywhere in Canada;

Legal rights explained as the right to life, liberty and security of the person and the right not to be deprived thereof except in accordance with the principles of fundamental justice;

Equality rights for all individuals, allowing no discrimination based on race, national or ethnic origin, colour, religion, sex, age or mental or physical disability;

Official languages of Canada, being English and French, giving them equality of status and equal rights and privileges as to their use in all institutions of the Parliament and Government of Canada;

Minority language education rights which set out the rights of Canadians regarding the allowance of an education in either the English or French language; and

Native people's rights are protected in that the guarantee of certain rights and freedoms shall not be construed so as to abrogate and derogate from any aboriginal treaty or other rights or freedoms that pertain to the aboriginal peoples of Canada.

As well, the charter is designed to protect minorities in that it must be interpreted in a way that will preserve and enhance the multicultural heritage of Canadians.

The Charter of Rights entrenches in the Canadian constitution the same concepts that were passed in the Canadian Bill of Rights (RSC 1970, Appendix III) enacted in 1960. It also overlaps with the Canadian Human Rights Act passed in 1977, which set out specific rights, and established the Canadian Human Rights Commission and a privacy commissioner to administer the rights and obligations included in the act.

To control abuse of rights and freedoms, and to protect the rights of everyone in Canada, Section 1 of the charter states that the Canadian Charter of Rights and Freedoms guarantees the rights and freedoms set out in it subject only to such reasonable limits prescribed by law as can be demonstrably justified in a free and democratic society. In this way, rights are not absolute, but qualified.

20.1.4 Criminal law

Criminal law deals with crimes and their punishment. A crime may be described as an act against society, as distinct from a dispute between individuals. It has been defined as any act done in violation of duties an individual owes to the community, for which act the law has provided that the offender shall be punished.

The criminal law system in Canada has its basis in the Constitution Act, 1867 (the former BNA Act). Section 91 provides that exclusive legislative authority of Parliament extends to the criminal law, except the constitution of courts of criminal jurisdiction but including the procedure in criminal matters. By Section 92, provincial legislatures may make laws in relation to the administration of justice in the province, including the constitution, maintenance, and organization of provincial courts, and may impose punishment by fine, penalty, or imprisonment to enforce any law of the province.

At the time of Confederation each of the colonies had its own body of statutes relating to criminal law. In 1869, in an attempt to assimilate them into a uniform system applicable throughout Canada, Parliament passed a series of acts, some dealing with specific offences and others with procedure. Most notable of the latter was the Criminal Procedure Act, but other acts provided for the speedy trial or summary trial of indictable offences, the powers and jurisdiction of justices of the peace in summary conviction matters and otherwise, and the procedure in respect of juvenile offenders.

Codification of the criminal law through a criminal code bill founded on the English draft code of 1878, Stephen's *Digest of criminal law*,

Burbidge's *Digest of the Canadian criminal law*, and the relevant Canadian statutes, was brought about by the justice minister, Sir John Thompson, in 1892. This bill became the Criminal Code of Canada and came into force in July 1893.

The Criminal Code has been revised and amended frequently. In its present form it defines offences in the following general categories: offences against public order; firearms and other offensive weapons; offences against the administration of law and justice; sexual offences, public morals and disorderly conduct; invasion of privacy; disorderly houses, gaming and betting; offences against the person and reputation; offences against rights of property; fraudulent transactions; wilful and forbidden acts in respect of certain property; and offences relating to currency. The Code also defines procedure to be followed in the prosecution of both indictable and summary conviction offences.

Recent amendments in the area of sexual assault, the patriation of the constitution with the enhanced Charter of Rights and proposed changes in sentencing will have, as the courts build up a body of interpretation, a substantial impact on criminal law in Canada.

20.1.5 Law Reform Commission of Canada

The commission was established by the Law Reform Commission Act, which came into force in June 1971, to study and to keep under review the federal laws of Canada with a view to making recommendations for their improvement, modernization and reform. Specifically included among the commission's statutory objects is innovation in the development of new approaches to and new concepts of the law, in keeping with and responsive to the changing needs of modern Canadian society and its individual members. The commission has a specific mandate to make reform recommendations which reflect the distinctive concepts and institutions of the common law and the civil law legal systems of Canada. This statutory objective also sets the commission upon the path of reconciliation of differences and discrepancies in the expression and application of the law arising out of differences in those concepts and institutions.

The commission is required by statute to submit, from time to time, for the approval of the Minister of Justice, specific programs of study of particular laws or branches of law. It must include in such programs any study requested by the Minister to which, in his opinion, it is desirable in the public interest that special priority be accorded. The commission is then empowered by statute

to initiate and carry out any studies and research of a legal nature as it deems necessary for the proper discharge of its functions, including studies and research relating to the laws, legal systems and institutions of other jurisdictions, whether in Canada or abroad.

The commission's program of activities has four major segments: substantive criminal law, criminal procedure, protection of life and administrative law. In addition, the commission prepares discrete reports on small but significant anomalies found in statutes.

20.2 Courts and the judiciary

20.2.1 Administration of courts

Responsibility for administration of courts is divided between federal and provincial levels of government by the revised constitution, which retains the applicable provisions of the British North America Act.

Section 92(14) gives each province exclusive powers over the administration of justice in that province. Under this authority provincial legislatures have established courts of appeal, supreme courts, county courts and provincial courts. The governments of Quebec and Nova Scotia have delegated some authority to their municipalities; hence these two provinces have municipal courts.

Section 101 allows Parliament to provide for the constitution, maintenance and organization of a general court of appeal for Canada, and for the establishment of any additional courts for the better administration of the laws of Canada. Under this authority the Supreme Court of Canada, the Federal Court of Canada, the Tax Court of Canada, and the Court Martial Appeal Court of Canada, have been established.

Section 96 provides that the Governor General shall appoint the judges of superior, district, and county courts in each province, except those of the courts of probate in Nova Scotia and New Brunswick. Section 100 carries this one step further: the salaries, allowances and pensions of these judges are to be fixed and provided by Parliament.

Provincially constituted courts in each province can be divided into two groups: those whose judges are appointed and paid by the federal government, and those whose judges are appointed and paid by the province.

An appellate court is the superior court or the superior court division whose primary function is to review the decisions of other courts. In a civil case, basically, the courts try to determine the relative rights of two opposing parties. In a

criminal case a court is asked to decide the guilt or innocence of a person charged with an offence.

Expenditures on court operations are divided among the various levels of government. The federal government bears the costs of the Supreme Court, the Federal Court of Canada and the Tax Court of Canada. It also appoints and pays the salaries of provincial and territorial superior court judges. The provinces are responsible for all other expenses.

20.2.2 Administration of criminal prosecutions

Responsibility for the prosecution of criminal cases is also divided between the federal and provincial governments. The primary basis for the division is found in Section 2 of the Criminal Code. The Attorney General of a province is given responsibility for proceedings under the Criminal Code. The Attorney General of Canada is given responsibility for criminal proceedings in Northwest Territories and Yukon, and for proceedings under federal statutes other than the Criminal Code. Provincial statute and municipal bylaw prosecutions are the responsibility of the provincial Attorney General.

Prosecutions may be carried out by the police or by lawyers, depending on the practice of the Attorney General responsible. If prosecutions are carried out by lawyers, the Attorney General may rely on full-time staff lawyers, or may engage the services of a private practitioner for individual cases.

20.2.3 Federal judiciary

The Supreme Court of Canada was created in 1875 by an act of Parliament, eight years after Confederation. Despite its creation, cases brought before it could still be further appealed to the judicial committee of the Privy Council in England. Appeals to this committee were abolished in criminal cases in 1933 and in all other cases in 1949, when the Supreme Court Act was amended to establish firmly the court's judicial independence as Canada's ultimate court of appeal.

The court was first composed of a Chief Justice and five puisne or associate judges. In 1927 the number of judges was increased to seven and in 1949, with the abolition of appeals to the judicial committee of the Privy Council, to nine, the current number. Of these, at least three are to be appointed from Quebec.

The Supreme Court is a general court of appeal for both criminal and civil cases. Its jurisdiction embraces the civil law of Quebec as well as the

common law of the nine common law provinces. In most cases, appeals are heard by the court only if permission to appeal is first given. The court will grant such leave if it is of the opinion that a question of public importance is involved, or if there is an important issue of law that ought to be decided by the court. Leave to appeal may also be given by a provincial appellate court when one of its judgments is sought to be questioned in the Supreme Court of Canada.

The court will review cases coming from the 10 provincial courts of appeal and from the appeal division of the Federal Court of Canada. The court is also required to consider and advise on questions referred to it by the Governor-in-Council. It may also advise the Senate or the House of Commons on private bills referred to the court under any rules or orders of the Senate or of the House of Commons.

The Supreme Court sits only in Ottawa and its sessions are open to the public. A quorum consists of five members, but the full court of nine sits in most cases; however, in a few cases, five are assigned to sit, and sometimes seven, when a member is ill or disqualifies himself. Since most of the cases have been screened through successful applications for leave to appeal, they involve, by and large, important questions of general concern that ought to be heard by the full court of nine. The main categories include constitutional, criminal and administrative law cases. Some cases may raise points of particular concern which do not need the attention of the full court. Unless by special leave of the court, the only persons who may appear before the court to argue, apart from litigants themselves, are lawyers from any Canadian province. The judgment of the Supreme Court of Canada in all cases is final and conclusive.

Chief Justice and judges of the Supreme Court of Canada, as at January 23, 1989:

Chief Justice of Canada, Rt. Hon. Mr. Justice Brian Dickson, PC (appointed April 18, 1984; first appointed a judge of the Supreme Court March 28, 1973)

Hon. Mr. Justice William Rogers McIntyre (appointed January 1, 1979)

Hon. Mr. Justice Antonio Lamer (appointed March 28, 1980)

Hon. Madam Justice Bertha Wilson (appointed March 4, 1982)

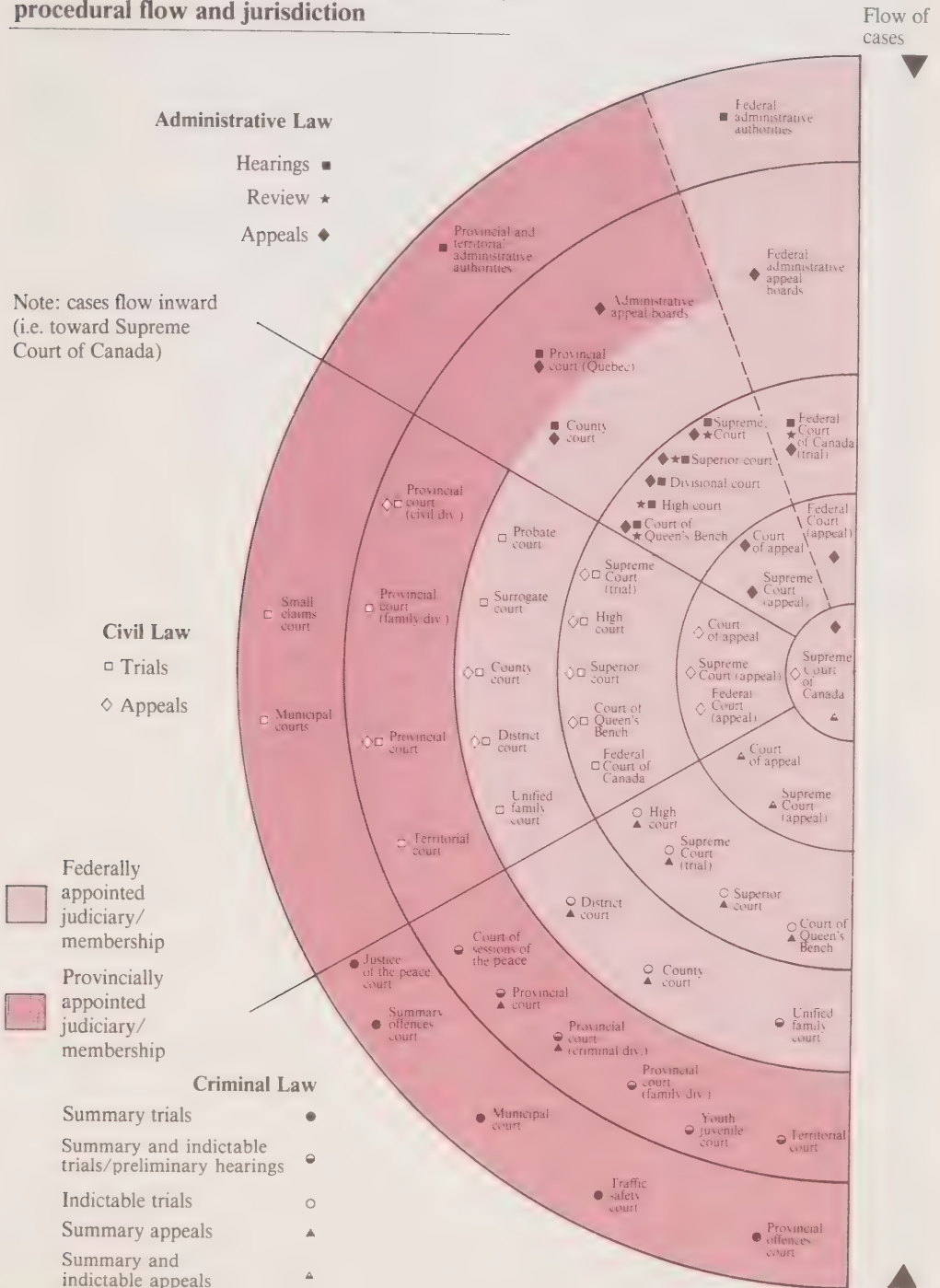
Hon. Mr. Justice Gerard V. La Forest (appointed January 16, 1985)

Hon. Madam Justice Claire L'Heureux-Dubé (appointed April 15, 1987)

Hon. Mr. Justice John Sopinka (appointed May 24, 1988)

Chart 20.1

Overview of the courts of Canada: Hierarchy, procedural flow and jurisdiction



Hon. Mr. Justice Charles Joseph Gonthier (appointed January 23, 1989)

Hon. Mr. Justice Peter de Carteret Cory (appointed January 23, 1989).

The Federal Court of Canada came into existence in June 1971. It was constituted by an act of Parliament under Section 101 of the British North America Act (Constitution Act, 1867) which, after authorizing the creation of the Supreme Court of Canada, confers on Parliament the authority to constitute other courts for the better administration of the laws of Canada. According to the Federal Court Act (RSC 1970, c.10), the court was established as a court of law, equity and admiralty, and it is a superior court of record having both civil and criminal jurisdiction. The Federal Court replaced the Exchequer Court of Canada which had been in operation since 1875.

The court has two divisions, an appeal division and a trial division. The court of appeal consists of the Chief Justice and 10 other judges. The trial division consists of the Associate Chief Justice and 13 other judges. Every judge is an ex officio member of the division of which he is not a regular member.

While all judges must live in or near the National Capital Region, each division of the court can sit any place in Canada. The place and time of the sittings must be arranged to suit the convenience of the litigants. There is authority in the statute for a rotation of judges to provide for continuity of judicial availability in any place where the volume of work, or other circumstances, makes such an arrangement expedient.

Chief Justice and judges of the Federal Court of Canada, as of September 2, 1988:

Chief Justice, Hon. Mr. Justice Frank Iacobucci (appointed Chief Justice September 2, 1988)

Associate Chief Justice, Hon. Mr. Justice James Alexander Jerome (appointed February 18, 1980).

Federal Court of Appeal:

Hon. Mr. Justice Louis Pratte (appointed to trial division June 10, 1971; appointed to appeal division January 25, 1973)

Hon. Mr. Justice Darrel Verner Heald (appointed to trial division June 30, 1971; appointed to appeal division December 4, 1975)

Hon. Mr. Justice John J. Urie (appointed April 19, 1973)

Hon. Mr. Justice Patrick Morgan Mahoney, PC (appointed to trial division September 13, 1973; appointed to appeal division July 18, 1983)

Hon. Mr. Justice Joseph Augustine Louis Marceau (appointed to trial division December 23, 1975; appointed to appeal division July 18, 1983)

Hon. Mr. Justice James Knatchbull Hugessen (appointed July 18, 1983)

Hon. Mr. Justice Arthur Joseph Stone (appointed July 18, 1983)

Hon. Mr. Justice Mark MacGuigan (appointed June 29, 1984)

Hon. Mr. Justice Bertrand Lacombe (appointed October 29, 1985)

Hon. Madam Justice Alice Desjardins (appointed June 29, 1987).

Federal Court Trial Division:

Hon. Mr. Justice Frank U. Collier (appointed September 16, 1971) became a supernumerary judge as of November 1, 1987

Hon. Mr. Justice George A. Addy (appointed September 17, 1973; became a supernumerary judge as of September 1, 1983)

Hon. Mr. Justice Jean-Eudes Dubé, PC (appointed April 9, 1975)

Hon. Mr. Justice Paul Rouleau (appointed August 5, 1982)

Hon. Mr. Justice Francis C. Muldoon (appointed July 18, 1983)

Hon. Mr. Justice Barry Louis Strayer (appointed July 18, 1983)

Hon. Mr. Justice John C. McNair (appointed July 18, 1983)

Hon. Madam Justice Barbara Joan Reed (appointed November 17, 1983)

Hon. Mr. Justice Pierre Denault (appointed June 29, 1984)

Hon. Mr. Justice Yvon Pinard (appointed June 29, 1984)

Hon. Mr. Justice L. Marcel Joyal (appointed June 29, 1984)

Hon. Mr. Justice Bud Cullen (appointed July 26, 1984)

Hon. Mr. Justice Leonard A. Martin (appointed October 29, 1985)

Hon. Mr. Justice Max M. Tietelbaum (appointed October 29, 1985)

Hon. Mr. Justice W. Andrew MacKay (appointed September 2, 1988).

20.2.4 Provincial judiciary

Certain provisions of the constitution govern to some extent the provincial judiciary. Under Section 92(14), the legislature of each province exclusively may make laws in relation to the administration of justice in the province, including the constitution, maintenance and organization of provincial courts of both civil and criminal jurisdiction. Section 96 provides that the Governor General shall appoint the judges of the superior, district and county courts in each province, except those of the courts of probate in Nova Scotia and New Brunswick.

20.2.5 Territorial judiciary

In 1971 amendments now cited as RSC 1970, c.48 (1st supplement) to the Yukon Act and the Northwest Territories Act were proclaimed in force, simultaneously with certain ordinances of Yukon and Northwest Territories, allowing the territorial governments to assume responsibility for the administration of justice other than the conduct of criminal prosecutions.

Yukon created a court of appeal, a supreme court and a territorial court through territorial legislation in 1971. The court of appeal, as established by the Court of Appeal Act (RSYT 1971, c.C-20) consists of the resident justice of Yukon, plus a resident justice of Northwest Territories, the chief justice of British Columbia and nine judges of the court of appeal of British Columbia. The court sits primarily in Vancouver, but also has sittings in Whitehorse. The supreme court, according to the Supreme Court Act (RSYT 1971, c.T-2) consists of the resident justice of Yukon, a resident justice of Northwest Territories, and when required, three judges from British Columbia and Alberta. It sits primarily in Whitehorse. The territorial court, as enabled by the Territorial Court Act (RSYT 1971, c.M-1), has three full-time judges and a pool of deputy judges on call, all appointed by the territorial commissioner. There are also justices of the peace serving in several widely scattered circuit locations.

Northwest Territories has a court system consisting of a court of appeal, a supreme court and a territorial court. The court of appeal consists of the resident justice of Northwest Territories, the resident justice of Yukon, the chief justice of Alberta and 12 judges of the court of appeal of Alberta. It sits annually in Yellowknife and in Edmonton and Calgary, as required. The supreme court is presided over by two resident justices of Northwest Territories, the resident justice of Yukon, and when required, eight federally appointed judges from Alberta, plus three from Quebec and two from Ontario. It sits permanently in Yellowknife and goes on circuit to various locations as required. The territorial court consists of four territorially appointed judges; three sit permanently in Yellowknife and one in Hay River, as well as travelling on circuit. There are about 120 justices of the peace serving most locations throughout the Northwest Territories.

20.2.6 Canadian Judicial Council

The Canadian Judicial Council, as established under amendments to the Judges Act, consists of the Chief Justice of Canada and the chief justices and associate chief justices of superior courts. The

council's purpose is to promote efficiency and uniformity, and to improve the quality of judicial service in superior and county courts. It is assisted in these tasks by a county court committee composed of senior county court judges of the jurisdictions.

The council organizes conferences and educational seminars for federally appointed judges, acts as a focal point for discussion of issues of interest to the judiciary, and conducts investigations of allegations or complaints made in respect of a federally appointed judge.

20.2.7 Office of the Commissioner for Federal Judicial Affairs

The Commissioner for Federal Judicial Affairs, under the Minister of Justice, is responsible for administrative matters pertaining to the Canadian Judicial Council and all federally appointed judges excluding those of the Supreme Court of Canada. Specific duties include the administration of judges' salaries, allowances and annuities as provided for in the Judges Act, the preparation of budgetary submissions for the requirements of the office and the Canadian Judicial Council, and such other tasks associated with the proper functioning of the judicial system as may be assigned by the Minister of Justice. The position was established in 1978 under amendments to the Judges Act.

20.3 Legal services

20.3.1 The legal profession

Lawyers are part of the machinery of justice and are considered officers of the court. They represent parties appearing before the courts in both civil actions and criminal proceedings, and in these situations are often referred to as counsel. The initials QC after a lawyer's name mean Queen's Counsel, a title given by the government to lawyers in recognition of experience and competence.

Lawyers also assist and advise individuals, organizations and institutions (including governments) in all activities having a legal element. A lawyer appearing for a client in court is acting as a barrister and one engaged in other activities as a solicitor. These are English terms carried over from the way the legal profession developed and is still organized in England, where there is a clear division between the two. Every Canadian lawyer, however, is both a barrister and a solicitor, although some lawyers specialize in court or barrister work. Others, by far the greater number, devote themselves to the solicitor or office work of assisting and advising.

In Quebec the profession is divided between advocates (lawyers) and notaries. The advocate acts both as a barrister and solicitor. He may plead in court and also provide legal advice to his client. The notary may appear in court only on non-contentious matters such as adoption proceedings. He has the power to prepare certain documents, such as wills, deeds of sale of real property, and marriage contracts.

In all provinces, lawyers are organized in provincial law societies which control admission to the profession and discipline their members to maintain high standards. Before being admitted to practice, a potential lawyer must complete rigorous and lengthy education and training. This differs in detail from province to province but usually includes two years of university, three years of law school, up to a year of apprenticeship called articling or clerkship under the supervision of a practising lawyer, and some special practice courses supervised by the law society.

20.3.2 Department of Justice

Criminal prosecutions. The Department of Justice has regional offices at Halifax, Montreal, Toronto, Winnipeg, Saskatoon, Edmonton, Vancouver and Yellowknife. A Crown attorney's office is in Whitehorse and an Ottawa office (criminal prosecutions section) is staffed with full-time prosecutors.

The Ottawa office is composed of a headquarters division, an anti-trust division, an Ottawa region division and a Hull region division. To supplement regular staff, standing agents and ad hoc agents are employed to prosecute under particular statutes within a specified municipality or other territorial division and to prosecute specific cases. Personnel from the Ottawa office and other regional offices assist prosecutors in Yukon and Northwest Territories.

Directors of regional offices oversee federal criminal litigation and provide prosecution services in their geographic areas.

In provinces with federal Department of Justice offices the Crown is represented in indictable appeals by regular staff prosecutors. Where there is no such office, the agent who appeared at trial will represent the Crown on appeal.

In appeals to the Supreme Court of Canada, a member of the Ottawa office staff or the member of the office who handled the appeal in the prior court will represent the Attorney General of Canada.

20.3.3 Legal aid

Before its institutionalization in law and in federal-provincial cost-sharing schemes, legal aid was

based on charity and differed from present-day services, not just in the amount of assistance but also in philosophy. Legal aid is now seen as a component of an effective judicial system rather than as a facet of social welfare.

All provinces and territories provide legal aid in criminal cases to eligible persons who might be imprisoned or lose their livelihood if convicted. Varying amounts of help are given for civil matters in all jurisdictions. Eligibility is established according to financial circumstances, the basic aim being to assist those who would be unable to retain counsel or would suffer serious hardship if they had to obtain legal services on their own.

History. Before the advent of organized legal aid, lawyers sometimes provided free legal services to people who could not pay, or they charged reduced fees depending on a client's financial circumstances. An early arrangement for providing legal help was to appoint a lawyer when an indigent person was charged with a serious crime. The appointment may have been made by a judge or on a judge's request, depending on the jurisdiction. The provincial or territorial department concerned with justice usually looked after the cost, at least for more serious and time-consuming cases, but the government did not always pay the lawyer who was appointed.

In the development of legal aid plans, there were basically three different patterns. In Newfoundland, Nova Scotia, Quebec, Manitoba and British Columbia, the provincial law society first developed legal aid clinics. The efforts of the law societies led in due course to the development of government funded legal aid. In Ontario and Alberta the law society and the provincial government went through a developmental period which culminated in the current plans in both provinces now mostly funded by the government. In Prince Edward Island and New Brunswick, the provincial governments introduced the present legal aid plans. Saskatchewan introduced at first a *judicare* plan, based on an agreement between the law society and the province and a few years later the present plan, which provides for legal services, as a rule, through salaried lawyers.

In Yukon and Northwest Territories, the federal Department of Justice administered a criminal legal aid plan for a number of years until 1971. At that time the administration of justice functions including the provision of legal aid were transferred to the territories.

Agreements with the federal government. The federal Department of Justice started cost sharing legal aid with respect to the criminal law in 1972.

Quebec and British Columbia signed by December of that year, the four Atlantic provinces, Ontario, Manitoba and Alberta signed in 1973, and Saskatchewan in 1974.

The cost-sharing formula specified in the criminal legal aid agreement has traditionally set a maximum limit to the federal contribution.

The formula set out in the federal-provincial agreements and applied to each plan's net cost-shareable expenditures, determines federal contributions to criminal legal aid. Net cost-shared expenditure is the cost incurred by each legal aid plan on matters specified under the federal-provincial cost-sharing agreement for criminal legal aid. It covers both legal service costs and associated administrative expenses, less all contributions and recoveries received from clients. Administrative expenses have been claimable since 1976-77.

The federal and provincial government agreement is subject to a number of conditions including eligibility of persons charged with offences, choice of lawyers, appeals to higher courts by the Crown, and fee schedules.

In past years, one criminal legal aid agreement was in place, but since 1984-85, two have been administered — one for adults and one for young people.

Civil coverage of legal aid matters was initiated in July 1980 with federal amendments to the Canada Assistance Plan Act, 1966-67. Under the auspices of Health and Welfare Canada, the federal and provincial governments agreed to cost share civil legal aid on a 50/50 basis. These agreements allow for retroactive payments of civil legal aid expenditure, subject to provincial social assistance legislation.

Cost sharing with the territories extends to both criminal and civil matters. Agreements were signed with Northwest Territories in 1971 and 1979 and with Yukon in 1977. With the territories, the formula calls for a 50% federal contribution, with specified maximums.

Duty counsel. Most jurisdictions have a duty counsel system to advise detained persons and persons appearing in court without counsel, to guide them in obtaining legal services, and to provide on-the-spot representation if needed.

Duty counsel is provided through private practice lawyers in New Brunswick, Alberta and the two territories, which have *judicare* type legal aid. It is furnished mainly by staff lawyers in Quebec, but by both private practice and staff lawyers in all other provinces with duty counsel service: Newfoundland, Ontario, Manitoba and British Columbia. Ontario is different in that duty

counsel service is provided by staff lawyers in Toronto but by private practice lawyers elsewhere.

Lawyers who provide duty counsel services may be located in magistrate's (provincial), family and juvenile courts. In Yukon and Northwest Territories, duty counsel lawyers travel with the court.

Nova Scotia, Prince Edward Island and Saskatchewan do not have formal duty counsel systems, but lawyers working for the legal aid plans advise or represent accused persons if necessary.

Legal aid services. Legal aid services may consist of providing legal advice, representing clients in court proceedings, representing clients in administrative matters, drawing up legal documents, and negotiating settlements. The extent of these services, especially in civil matters, differs by jurisdiction.

20.4 Law enforcement

20.4.1 Crime

Over the six-year period 1982-87, the number of total offences increased 4.1% from 2,838,840 to 2,955,510.

Criminal Code offences, accounting for about three-quarters of all offences, grew by 7.3% between 1982 and 1987. They can be broken down into three categories: crimes of violence, property crimes and other criminal code offences. According to 1987 data, property crimes were about seven times as numerous as crimes of violence. Between 1982 and 1987 property crimes increased 0.1% and crimes of violence 30.1%.

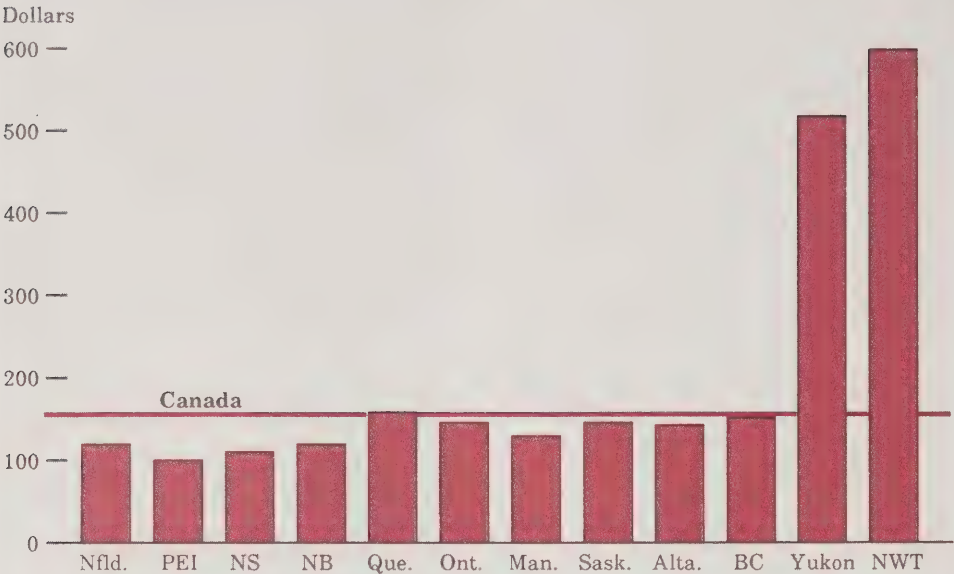
Federal statute offences, which accounted for about 3.5% of total offences, declined by 9.6% between 1982 and 1987. Federal statute drug offences declined by 4.6% during the same time period. For additional information see Table 20.1.

Criminal Code traffic statistics. In 1987, impaired driving offences, which include driving while impaired and failing or refusing to provide a breath sample, accounted for 61% of the 241,524 Criminal Code traffic offences, while failing to stop or remain at the scene of an accident offences comprised an additional 32%. The remaining 6% were for dangerous operation of a motor vehicle, boat, vessel or aircraft and driving while prohibited offences. Over the two-year period 1986-87, the number of Criminal Code traffic offences increased by 1%. For additional information see Table 20.2.

20.4.2 Homicide

Homicide is a term used to designate the three Criminal Code offences of murder (prior to July

Chart 20.2
Per capita cost of total policing expenditures, 1987



26, 1976, capital and non-capital murder), manslaughter and infanticide. In the six-year period 1982-87, 3,932 persons were victims of homicide in Canada. This represents a yearly average of 655 deaths or an average annual rate of 2.6 homicide victims per 100,000 population. Murders have accounted for an average of 92% of all homicide offences from 1982 to 1987, man-slaughters have accounted for 7% and infanticide offences approximately 1% of total homicides. For additional information see Table 20.3.

20.4.3 Policing responsibilities

Policing in Canada is the responsibility of three levels of government: federal, provincial and municipal. The federal government, through the Royal Canadian Mounted Police (RCMP), is responsible for federal policing. Each province assumes responsibility for municipal and provincial policing. However, provincial legislation in most provinces requires that cities and towns maintain their own municipal force once reaching a population of between 1,500 and 10,000.

Federal police. The RCMP has responsibility for the enforcement of federal statutes and executive orders in all provinces and territories and for

providing protective services, airport and native policing.

The RCMP has a mandate to enforce Canadian laws, prevent crime and maintain peace, order and security. Specifically, the RCMP works to prevent and detect crime and maintain law and order in provinces, territories and municipalities under contract; improve community relations; investigate national security offences; and provide investigative and protective services to other federal departments and agencies.

The RCMP also assists, on request, all Canadian law enforcement agencies by providing specialized services relating to police training, forensic laboratories, identification and information.

Provincial police. The Ontario Provincial Police (OPP) enforces the Criminal Code and provincial statutes in areas not required to maintain their own municipal police departments; maintains a traffic patrol on highways and rural areas; enforces the Liquor Licence Act for Ontario; and maintains a criminal investigation branch and other branches to assist other forces in investigating major crimes.

The Quebec Provincial Police force is responsible for maintaining peace, order and

public safety throughout the province, and for prevention and investigation of criminal offences and violations of provincial law.

The RCMP provides provincial policing services under contract to all provinces except Quebec and Ontario, and to the two territories. In Newfoundland, provincial policing is shared with the Royal Newfoundland Constabulary. In New Brunswick, the New Brunswick Highway Patrol provides specialized traffic law enforcement services in addition to the RCMP policing services.

Municipal Police. Provincial legislation makes it mandatory for cities and towns to furnish adequate municipal policing for the maintenance of law and order in their communities. Villages and townships or parts of townships having a population density and a real property assessment sufficient to warrant maintenance of a police force, and having been so designated by order-in-council, are responsible for policing their municipalities. Municipal police enforce the Criminal Code, provincial statutes and municipal bylaws in their jurisdiction.

Over 400 municipalities maintained their own independent police force in 1987. The RCMP provides municipal policing services under contract to 191 municipalities in all provinces except Newfoundland, Quebec and Ontario. In Ontario, the OPP provides municipal policing services under contract to 13 municipalities.

Police administration highlights, 1987. Canada's total police officer strength (52,510) accounted for 73% of police personnel which totalled 71,650.

The largest concentration, 36% or 18,836 police officers, was registered in Ontario and the smallest proportion, 0.2%, in the Yukon.

In 1987, policing expenditures in Canada totalled \$4,025 million — a national per capita cost of \$157.

For additional information see Table 20.4.

20.5 Adult criminal court adjudications

Offences may be classified in three groups: indictable offences, summary conviction offences and dual procedure offences which allow the prosecutor to choose whether the prosecution will be by summary conviction or indictment. Indictable offences are grouped in two main categories: offences that violate the Criminal Code and offences against federal statute. Offences punishable on summary conviction — those not expressly made indictable — include offences against the Criminal Code, federal statutes,

provincial statutes and municipal bylaws. Many summary conviction offences amount to mere disturbances of the peace, minor upsets to public safety, health and comfort such as parking violations, intoxication and practising trades without a licence. Nevertheless, summary conviction offences may include more serious charges such as assault.

There are two important differences between summary conviction and indictable offences. First, indictable offences are tried by a more complex and formal procedure than are summary conviction offences. Second, the maximum penalty which can be imposed in a summary conviction is a \$500 fine or six months imprisonment, or both. The Criminal Code provides that a magistrate's or provincial court has exclusive jurisdiction over summary conviction offences and certain named indictable offences. Other indictable offences require the accused person to elect whether he wishes to be tried by the magistrate or provincial court judge alone, a higher judge alone or a higher judge sitting with a jury.

More serious offences such as murder, sexual assault or treason are the exclusive jurisdiction of a superior court and must be tried in a superior court, usually with a jury.

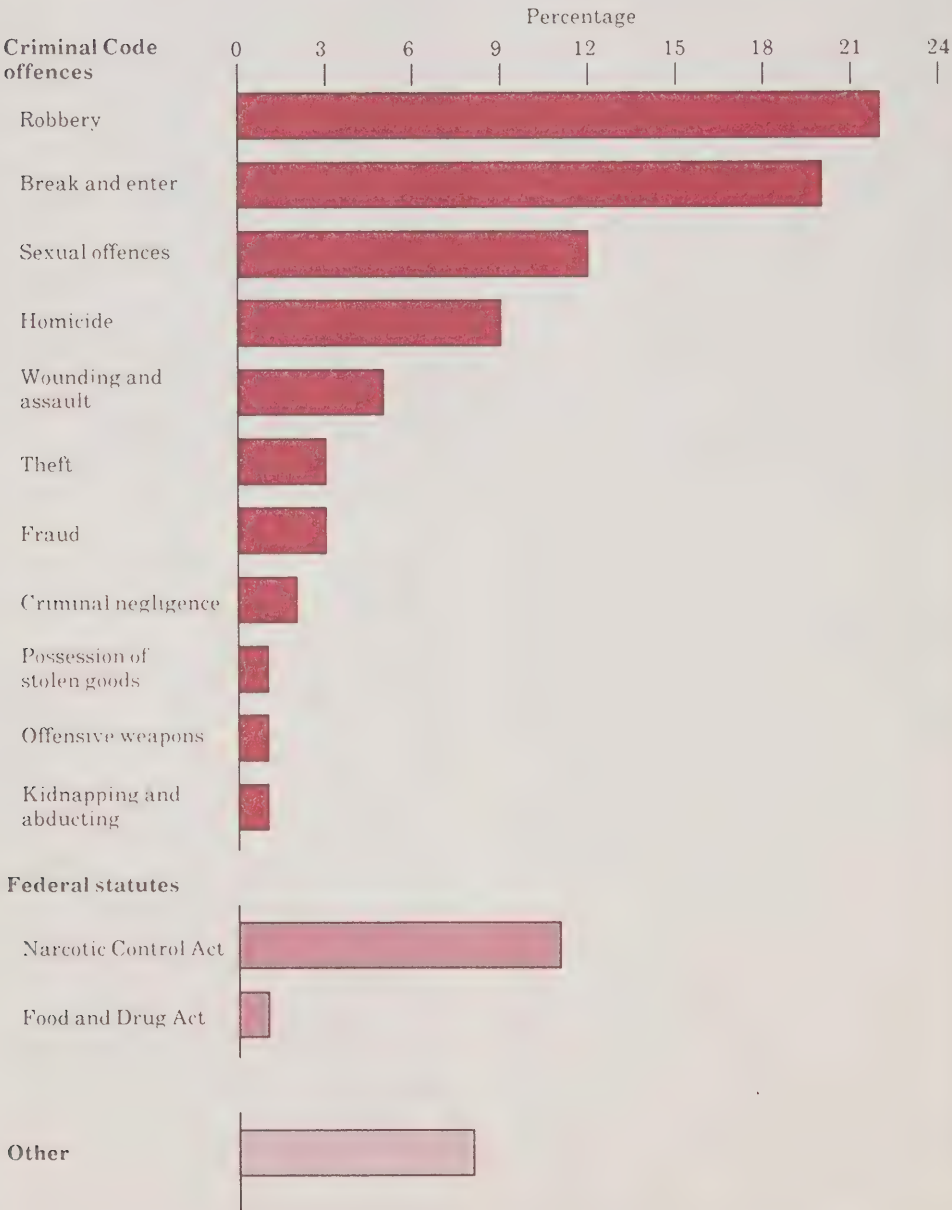
20.6 Youth courts — young offenders

The Juvenile Delinquents Act (RSC 1970 c.J-3), enacted in 1908 to deal with children who were involved in criminal activities or who were generally delinquent, was repealed and replaced in 1984 by the Young Offenders Act (RSC 1982 c.110). The Young Offenders Act presents a new direction, based on a different philosophy and a new set of principles for dealing with young persons who commit crimes.

The Young Offenders Act became operative in all provinces and territories on April 2, 1984. Under the terms of the Young Offenders Act, youth courts were given restricted jurisdiction to deal only with children who violated the Criminal Code and other federal statutes. Violations of provincial and municipal laws and 'status offences' such as sexual immorality were excluded from the jurisdiction of youth courts. At the same time, amendments were made to the Criminal Code to coincide with the Young Offenders Act.

With the implementation of this act, the minimum age for prosecution of young persons was raised to 12 and the maximum age was standardized at under 18 years across the country.

Chart 20.3
Percentage of warrant of committal admissions to federal custody, by major offence, 1987-88



For all provinces and territories, the minimum age was the first to be implemented April 2, 1984, followed by the maximum age April 1, 1985. Responsibility for dealing with children under 12 years rests with the provinces, to be incorporated as they see fit under some form of child or social welfare legislation. Applications to transfer young persons to ordinary court are made on the basis of the interests of the community first, while having regard to the needs of the young person.

The police are still responsible for initiating charges against young offenders under the Young Offenders Act. Police may use discretion for minor offences by warning and returning the young person to his/her parents rather than charging. In addition, formal screening of young offender cases prior to prosecution is occurring in some jurisdictions. Formal screening entails reviews by the Attorney General or representatives of the Attorney General (usually Crown Counsel) of young offender cases referred by the police for prosecution. A preliminary examination of young offender cases is made with regard to the sufficiency of evidence and the appropriateness of the cases for prosecution. Crown Counsel may decide to take no further action on the cases, refer the case for alternative measures or proceed with formal prosecution.

Alternative measures described in Section 4 of the Young Offenders Act have been instituted in some provinces as alternatives to formal judicial proceedings. From what is known of these programs, they are similar in content to the diversion programs which operated under the Juvenile Delinquents Act; they are, however, more formalized, using entrance criteria, and, more importantly, the young offender must acknowledge responsibility for his/her criminal actions prior to participation in the program as well as be afforded certain legal rights while in the program.

Adjudications given by youth court judges under the Young Offenders Act are similar to those given under the Juvenile Delinquents Act. There is, however, not a general finding of delinquency, and there are no 'adjournments sine die'. Youth court judges may find young offenders 'guilty', 'not guilty', 'not guilty by reason of insanity' or 'unfit to stand trial'; or they may confirm a request by the Crown to 'stay proceedings', 'dismiss' or 'withdraw' the case, 'transfer the young offender to ordinary court' or 'transfer the young offender to another jurisdiction'.

Dispositions given under the Young Offenders Act must be for a definite period of time and

youth court judges may decide upon one or a combination of dispositions which are not incompatible according to Section 20(1) of the act. These dispositions include: secure custody; open custody; detention for treatment; probation; maximum fine of \$1,000; compensation/compensation in kind/pay purchaser/restitution; community service order; prohibition/seizure/forfeiture; absolute discharge; and other ancillary conditions.

20.7 Correctional services

Responsibility for the provision of adult correctional services is shared among all federal, provincial, and in the case of Nova Scotia, municipal governments. As set out in the Criminal Code of Canada, the federal government is responsible for offenders sentenced to custody for two years or more, while provincial governments have authority over persons given a custodial sentence of two years less a day, or placed under other court orders.

Although there is a clear delineation in division of responsibility, provision is made for interchange among jurisdictions in exchange-of-service agreements. These are negotiated for such purposes as: transferring inmates across jurisdictions; accommodating parole suspensions; and providing for the efficient delivery of parole supervision, community assessment services, and health, psychiatric and educational services.

The federal Prisons and Reformatories Act defines the general administrative structures and responsibilities for operating custodial facilities. Each province or territory, although bound by general guidelines, has instituted its own set of legislative and regulatory guidelines for corrections.

The following government agencies are responsible for adult corrections in Canada:

Federally. Ministry of the Solicitor General; Correctional Service of Canada, National Parole Board.

Provincially and territorially. Newfoundland and Labrador, Department of Justice; Prince Edward Island, Department of Justice; Nova Scotia, Department of Attorney General; New Brunswick, Ministry of Justice; Quebec, Department of Justice; Ontario, Ministry of Correctional Services; Manitoba, Department of Community Services; Saskatchewan, Department of Justice; Alberta, Department of the Solicitor General; British Columbia, Ministry of the Attorney General; Yukon, Department of Justice; Northwest Territories, Department of Social Services.

20.7.1 Custodial services

Shared responsibility for custodial services spans across each of the municipal, provincial and federal levels of government. This three-tiered structure has been incorporated in divergent ways across Canada.

Although custodial sentences of two years less a day are under the authority of provincial government agencies, there may be exceptions. Federal offenders are normally held in the provincial system prior to transfer for a 30-day period of appeal. Additionally, with transfer agreements between the federal government and the provinces and territories, some federal offenders are detained in provincial facilities and vice versa.

The degree to which municipal and provincial governments share responsibility for temporary detainment is another source of variation. Some provinces assume no responsibility, others have partial responsibility, and still others have total responsibility.

Service structures also differ in the provision of custodial services through the private sector. Normally, sentenced inmates are transferred from a secure custodial environment to private facilities which usually allow for regular access to community resources. This has been the case in most jurisdictions. In recent years, private facilities have been integrated in some cases into the government facility network with a resultant impact on the corresponding average inmate counts.

20.7.2 Non-custodial services

The need to further develop community correctional services has been brought to the forefront in recent years, particularly in light of the high costs and questionable benefits of the custodial response to certain offender groups.

Non-custodial programs provided in each provincial jurisdiction are not limited to probation. However, probation is the primary community-based disposition as a sentencing alternative to incarceration. In recent years, other non-custodial correctional programs have emerged to varying degrees, some of them available as conditions of probation orders.

Use of specialized programs aimed at specific target groups such as females, natives, and drinking and driving offenders has grown in recent years. So have compensatory sentences, for example, community service orders, fine options and restitution. Involvement of probation and parole officers in the supervision of temporary absence cases varies across the country. As a result, caseloads reported do not represent a definitive picture of the offender population under community supervision.

Due to increasing community supervision in caseloads, volunteer programs have been established in most jurisdictions. Combined with the fact that probation officers supervise juveniles in some provinces, it is difficult to arrive at an accurate and comparable measure of officer caseload.

The National Parole Board is an independent agency in the Department of the Solicitor General. It is an integral part of the Canadian criminal justice system in its daily operations and works together with other components of the system.

Under the federal Parole Act, the National Parole Board is primarily responsible for: granting full parole and day parole to both federal and provincial inmates; granting to federal inmates those temporary absences which cannot be authorized at the institutional level; and, terminating or revoking day paroles and revoking parole and mandatory supervision releases.

Since September 1, 1978, as a result of amendments to the Parole Act, it has been possible for any province to establish its own parole board. Three provinces, Quebec, Ontario and British Columbia, have exercised this right and have assumed responsibility for granting, refusing and terminating parole for inmates serving definite sentences in provincial facilities. New Brunswick also operates a provincial parole board but only for the release of adult inmates pursuant to a provincial statute. All other provincial inmates remain the responsibility of the National Parole Board; however, provincial inmates must apply for parole under Section 8(1) of the Parole Act while federal inmates are considered automatically for parole at their parole eligibility dates.

20.7.3 Correctional expenditures, facilities and personnel

Government spending on adult correctional services during 1986-87 amounted to about \$1.44 billion, including \$775 million federally (\$102 million in capital expenditures) and \$660 million provincially. This was an increase of \$55 million or 4% from the previous year's total of \$1.38 billion.

In 1986-87, over three-quarters of all corrections expenditures were for custodial services and the operation of the 222 institutions with 9% going to headquarters or regional offices and general administration, 9% to community supervision services and the remaining 2% for operation of federal and provincial parole boards. There were 456 probation and parole offices in Canada as of March 31, 1987. Staff salaries for 25,962 person-years in government correctional agencies

accounted for 69% of the total expenditures. Correctional officers represented almost one-half, or 11,790 of the staff complement, and probation and parole officers 5%.

20.7.4 Offender caseload

In 1986-87 there were on average 104,783 offenders in the Canadian corrections caseload, a 5% decrease since 1985-86. The majority, 78,020 or 74%, were under some form of community supervision, while 26,763 or 26% were held in custody, showing no change in proportion over the previous year.

The average provincial inmate population decreased by 4% over the 1985-86 figure, reaching 15,657 in 1986-87; the average federal inmate population in 1986-87 was 11,106, a decrease of 1% over 1985-86. There were on average about 3,525 provincial inmates and 1,544 federal inmates who were on register but not in custody at the time of the count.

While 75% of persons in the total correctional caseload were under community supervision, about 9% of total correctional expenditures were for the provision of these services in 1986-87.

20.7.5 Caseload characteristics

Female offenders comprised 6% of all provincial sentenced admissions to custody, 2% of all federal warrant of committal admissions to custody, and 17% of all admissions to provincial probation. Inmates admitted to provincial custody are typically 27 years old and almost one-third of all admissions are for fine default; federal inmates have an average age of 29 years and are typically incarcerated for either robbery or break and enter. The median sentence length on admission to provincial facilities in 1986-87 was 22 days; the corresponding sentence length for inmates admitted to federal penitentiaries was 44.2 months. The average provincial probationer is 25 years of age and is serving a probation order of 11 months.

Of total sentenced admissions (116,269) to provincial facilities during 1986-87, 73% were admitted under a Criminal Code offence, including drinking and driving, 19% under a provincial statute, 3% under a municipal bylaw, and the remaining 5% under a federal statute, usually drug-related. Specifically, fine defaulters accounted for almost one-third of all admissions to provincial custody and drinking and driving offenders accounted for 17% of total sentenced admissions.

At the federal level, 49% of all warrant of committal admissions were for robbery, break and

enter, and theft. Murder, attempted murder and manslaughter offences accounted for 9%, while sexual offences (including sexual assault) accounted for 9%.

20.8 Victims of crime

In recent years, criminal justice agencies and private sector groups have taken a number of initiatives for the victims of crime. Victims' services have been established across the country by both governments and private agencies. In 1981, a federal-provincial task force examined the needs of victims of crime and considered action which could be taken to improve methods of assistance to them. In 1982, the Solicitor General's department, with the assistance of Statistics Canada, conducted a victimization survey in seven major urban centres. This survey provides information on the victims of certain crimes, the risks and impact of victimization, the extent and distribution of reported and unreported crime, and public awareness of and participation in crime compensation and crime prevention programs.

20.8.1 Criminal injuries compensation

Criminal injuries compensation is related to two major areas of activity, the administration of justice and social security. From a justice perspective, it represents development in recent efforts to improve the criminal justice system by compensating innocent victims of crime. From a social security point of view, it forms part of a large network of programs to ensure Canadian residents of income security and necessary social services regardless of socio-economic status.

In each province and territory except Prince Edward Island, there is a program to compensate for injury or death as a result of: some specified or defined crime committed by another person; an effort to prevent crime; or an effort to arrest an offender or suspected offender. Criminal injuries compensation legislation has been in effect in Newfoundland, Ontario, Saskatchewan and Alberta from the late 1960s, and in other provinces from the early 1970s. Yukon and Northwest Territories have had legislation from the mid-1970s. Nova Scotia also had legislation from that time, but it went into force in May 1981. The federal Department of Justice started sharing costs of criminal injuries compensation programs in 1973.

Administration of criminal injuries compensation programs differs from jurisdiction to jurisdiction. For example, while all programs cover compensation for certain offences specified in the federal-provincial cost-sharing agreement, such

as homicide, assault and robbery, a jurisdiction may also compensate for other offences, such as abduction, and impaired or dangerous driving.

Compensation may be in lump-sum awards, periodic awards or a combination of both. There are variations in the maximum amounts payable. As a general rule, no compensation is paid for property damage.

20.9 Canadian Centre for Justice Statistics

The Canadian Centre for Justice Statistics is the focal point of a federal-provincial initiative dedicated to national statistics and information on the justice system in Canada. Established in Statistics Canada in 1981, the centre is responsible for producing information on the extent and nature of reported crime and the administration of criminal, civil and administrative justice in Canada.

This information is designed to serve governments in the development, operation and evaluation of justice policies and programs, as well as to contribute to public understanding of how the justice system operates and of its cost. The centre also provides assistance to federal and provincial agencies in developing information systems that can serve both local and national needs.

Reflecting these two responsibilities, the centre has two main operational arms, one dedicated to the development and operation of statistical programs, the other designed to provide technical assistance to individual jurisdictions.

The centre operates under the responsibility and authority of Statistics Canada, but its programs and priorities are established in conjunction with federal, provincial and territorial departments and agencies responsible for the administration of justice, represented through a number of formal committees.

20.9.1 Statistics and information programs

The centre's statistical programs provide information on the number and nature of cases dealt with by each major sector of the justice system: law enforcement, legal aid, courts and correctional services, as well as on resources, expenditures and personnel in each sector. Descriptive information is available on the structure, legislative authority and programs of each sector.

Ongoing data collection programs provide time series information and in-depth studies to provide information on high priority national justice issues.

Law enforcement. This program produces statistics on criminal incidents reported to the police, how they are dealt with, and police administration in Canada. Information is provided by accredited police and other law enforcement agencies. In-depth information on homicide incidents is also produced, covering such areas as the characteristics of offenders and victims, and means of committing the offence.

Legal aid. This program produces statistical and descriptive information on such legal aid activities as the provision of legal advice, counsel representation, and other legal services in criminal and civil cases.

Courts. A courts program provides information on courts and court services. Data scheduled to be published in late 1989 will include information on court resources, expenditures and personnel. Developmental projects are under way to produce more detailed information on court cases. Descriptive information is compiled on civil and criminal courts and the administrative arrangements related to these courts.

Correctional services. A corrections program provides information on basic aspects of federal and provincial correctional services such as prisons, penitentiaries, probation and parole services. Statistics are available on expenditures and personnel of the corrections sector, as well as on the inmate, probation and parole populations.

Juvenile justice. This program is designed to produce information on the juvenile justice system in such areas as law enforcement, screening, alternative measures, pre-court, court and post-court processes. It currently produces information on young offenders dealt with by the courts.

20.9.2 Technical assistance program

The technical assistance directorate supports the development of statistical programs and the transfer of technology between jurisdictions, helping them to develop operational information systems through technical expertise and resource support. The technical assistance program touches upon the major sectors of the justice system in the provinces, territories and the federal government.

The federal-provincial partnership. The centre operates on the principle that national justice information is a shared responsibility. A justice information council consists of all deputy ministers responsible for the administration of justice together with the Chief Statistician of Canada. Its main responsibility is to provide direction to and monitor the federal-provincial initiative, reviewing programs, priorities and progress.

A formal liaison officers committee represents justice information council members. Its primary task is to develop with the centre the specific programs and projects to be undertaken. Members

are spokespersons for their jurisdictions. Program advisory committees also provide expert advice to the centre in the development of particular programs and projects.

Source

Canadian Centre for Justice Statistics, Statistics Canada. Co-ordinator, Roger Boe.

FOR FURTHER READING

Selected publications from Statistics Canada

- Canadian Crime Statistics, annual. 85-205
- Homicide in Canada, a Statistical Perspective, annual. 85-209
- Adult Correctional Services in Canada, annual. 85-211
- Legal Aid in Canada, annual. 85-216
- The Future of National Justice Statistics and Information in Canada: Report of the Work Group of the National Project on Resource Coordination for Justice Statistics and Information (NPRC), 2 volumes, 1981. 85-506
- Civil Courts in Canada, 183 p., 1985. 85-509
- Juvenile Court Statistics, annual. 85-522
- Policing in Canada, 1986. 85p., 1986. 85-523

More information about these publications is available from Statistics Canada. See Appendix F for a complete list of Statistics Canada offices.

TABLES

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20.1 Actual offences by type¹, 1982-87

Type of offence	1982	1983	1984	1985	1986	1987	Percentage change 1982-87
Violent offences ²							
Homicide	670	682	668	704	569	642	-4.2
Attempted murder	943	880	922	862	880	916	-2.9
Sexual offences	13,864	3	3	3	3	3	3
Sexual assault	2,528	3	3	3	3	3	3
Other sexual offences	11,336	3	3	3	3	3	3
Assaults (not indecent)	125,912	3	3	3	3	3	3
Robbery	27,257	24,274	23,310	22,752	23,268	22,523	-17.4
Violent offences – total	168,646	172,315	179,397	189,822	204,917	219,381	30.1
Property offences							
Breaking and entering	369,882	362,376	356,912	356,744	365,140	364,144	-1.6
Theft – motor vehicle	86,997	75,988	76,613	82,250	85,585	87,061	0.1
Theft over \$200 ⁴	295,261	292,973	304,556	308,969	68,024	71,608	...
Theft under \$200 ⁴	570,556	548,229	523,485	512,928	773,257	792,623	...
Have stolen goods	25,830	24,767	24,322	24,686	25,985	27,013	4.6
Frauds	118,397	118,370	122,775	123,140	130,559	126,142	6.5
Property offences – total	1,466,923	1,422,703	1,408,663	1,408,717	1,448,550	1,468,591	0.1
Other criminal code offences	568,099	553,615	559,637	575,636	624,282	675,586	18.9
Total criminal code offences	2,203,668	2,148,633	2,147,697	2,174,175	2,277,749	2,363,558	7.3
Federal statute offences							
Drug offences	64,636	54,847	54,950	57,205	56,251	61,658	-4.6
Other federal statutes	48,229	45,764	36,887	38,915	40,251	40,344	-16.3
Total federal statutes	112,865	100,611	91,837	96,120	96,502	102,002	-9.6
Total provincial statutes	434,351	408,939	378,656	359,559	381,354	380,692	-12.4
Total municipal bylaws	87,956	90,395	95,796	94,454	102,600	109,258	24.2
Total offences	2,838,840	2,748,578	2,713,986	2,724,308	2,858,205	2,955,510	4.1

¹ Based on uniform crime reporting.

² Updates to the homicide data occur within the homicide project but are not conducted in the uniform crime reporting project, therefore, totals for homicide may vary between these two projects. Homicide includes murder, manslaughter and infanticide.

³ Breakdown for these offences is not available due to the proclamation of Bill C-127 in 1983.

⁴ Theft categories were increased from \$200 to \$1,000 in December 1985, therefore, percentage change 1982-87 is not applicable.

20.2 Traffic enforcement statistics, by type of criminal code offence, 1986 and 1987

Type of offence	1986	1987	Percentage change 1986-87
Dangerous operation of motor vehicle, boat, vessel or aircraft causing death	293	264	-9.9
Impaired operation of motor vehicle, boat, vessel or aircraft causing death	196	189	-3.6
Dangerous operation of motor vehicle, boat, vessel or aircraft causing bodily harm	605	673	11.2
Impaired operation of motor vehicle, boat, vessel or aircraft causing bodily harm	1,581	1,545	-2.3
Dangerous operation of motor vehicle, boat, vessel or aircraft	5,517	5,731	3.9
Impaired operation of motor vehicle, boat, vessel or aircraft over 80 mg of alcohol in the blood ¹	148,794	146,634	-1.5
Failure to stop or remain	77,340	77,916	0.7
Driving motor vehicle while prohibited	4,774	8,572	79.6
Total criminal code – traffic offences	239,100	241,524	1.0

¹ Includes failure or refusal to provide a breath or blood sample.

20.3 Distribution of homicide offences¹ by legal type², Canada, 1982-87

Year	1st degree murder		2nd degree murder		Manslaughter		Infanticide		Total homicides	
	Number	%	Number	%	Number	%	Number	%	Number	%
1982	283	42.4	339	50.7	42	6.3	4	0.6	668	100.0
1983	292	42.8	333	48.8	51	7.5	6	0.9	682	100.0
1984	331	49.6	290	43.5	41	6.1	5	0.7	667	100.0
1985	338	48.0	313	44.5	47	6.7	6	0.9	704	100.0
1986	261	45.9	261	45.9	44	7.7	3	0.5	569	100.0
1987	313	48.8	275	42.8	49	7.6	5	0.8	642	100.0
Average 1982-87	303	46.3	302	46.1	46	7.0	5	0.8	655	100.0

¹ One 'offence' is counted for each victim.

² The classification of these offences is based upon police-reported information and not final court dispositions.

20.4 Policing statistics in Canada, 1987

Province	Population	Police officer strength ¹	Total police personnel	Policing expenditures \$'000	Population per officer	Per capita cost \$
Newfoundland	568,200	916	1,150	67,902	620	120
Prince Edward Island	127,300	184	229	12,883	692	101
Nova Scotia	878,900	1,450	1,886	98,724	606	112
New Brunswick	712,300	1,201	1,576	86,863	593	122
Quebec	6,592,600	13,801	18,034	1,040,576	478	158
Ontario	9,270,700	18,836	25,115	1,367,173	492	147
Manitoba	1,079,000	2,095	2,719	142,115	515	132
Saskatchewan	1,014,000	1,939	2,576	149,991	523	148
Alberta	2,380,400	4,305	5,764	343,360	553	144
British Columbia	2,925,700	5,544	6,987	445,724	528	152
Yukon	24,400	101	150	12,608	242	517
Northwest Territories	51,700	202	302	30,949	256	599
RCMP headquarters and depot divisions	...	1,936	5,162	226,077	...	...
Canada	25,625,100	52,510	71,650	4,024,944	488	157

¹ Police officer includes the rank of Constable and above.

20.5 Number of federal statute charges heard by courts under the Juvenile Delinquents Act¹ and the Young Offenders Act, 1982-83 to 1986-87

Province or territory	Federal statute charges				
	Juvenile Delinquents Act ²		Young Offenders Act ³		
	1982-83	1983-84	1984-85 ^P	1985-86 ^P	1986-87 ^P
Newfoundland	2,276	2,997	2,023	3,033	3,826
Prince Edward Island	191	211	148	541	..
Nova Scotia	1,442	1,916	1,605	3,989	4,861
New Brunswick	1,366	1,380	1,008	2,346	2,858
Quebec ⁴	27,290	28,375	22,621	24,326	20,125
Ontario ⁵	20,370	19,794	22,970	56,315 ^T	67,281
Manitoba	11,408	10,293	9,472	9,947	10,271
Saskatchewan	2,405	2,092	1,670	5,035	9,041
Alberta	8,818	8,636	9,214	18,860	22,884
British Columbia	12,324	13,293	11,989	15,386	18,891
Yukon	244	187	..	330	293
Northwest Territories	496	572	552	1,452	..
Total ⁶	88,630	89,746	83,272	141,560 ^T	160,331

¹ The Juvenile Delinquents Act, enacted in 1908, was repealed and replaced in 1984 by the Young Offenders Act.

² All figures under the Juvenile Delinquents Act (JDA) exclude breach of probation and returns to court.

³ All figures under the Young Offenders Act (YOA) exclude failure to comply and reviews.

⁴ Quebec figures exclude charges laid against young persons under 14 years of age (144 charges in 1981-82; 227 charges in 1982-83; 165 charges in 1983-84).

⁵ The figure for 1985-86 and 1986-87 includes both family and criminal courts.

⁶ In the JDA data, adults, persons of unknown ages and persons over the maximum legislated age for each jurisdiction are included. Similarly, in the YOA data, persons of unknown ages, persons under 12 and persons over the maximum legislated age for each jurisdiction are included.

20.6 Number of young persons appearing before courts under the Juvenile Delinquents Act¹ and the Young Offenders Act, 1982-83 to 1986-87

Province or territory	Persons				
	Juvenile Delinquents Act ²		Young Offenders Act ³		
	1982-83	1983-84	1984-85 ^P	1985-86 ^P	1986-87 ^P
Newfoundland	1,243	1,621	1,017	1,403	1,776
Prince Edward Island	95	109	83	242	..
Nova Scotia	844	1,007	900	2,003	2,403
New Brunswick	753	784	564	1,082	1,349
Quebec ⁴	5,875	5,908	5,188	5,894	5,318
Ontario ⁵	10,327	10,598	15,691	36,177 ^T	43,431
Manitoba	4,034	3,908	3,968	3,944	3,802
Saskatchewan	926	859	775	2,411	3,491
Alberta	4,010	4,376	4,785	8,251	8,783
British Columbia	..	5,270	4,568	5,769	6,852
Yukon	93	92	..	147	145
Northwest Territories	234	291	219	584	..
Total ⁶	28,434	34,823	37,758	67,907 ^T	77,350

¹ See footnote 1, Table 20.5.

² See footnote 2, Table 20.5.

³ See footnote 3, Table 20.5.

⁴ Quebec figures exclude charges laid against young persons under 14 years of age (35 charges in 1981-82; 50 charges in 1982-83; 36 charges in 1983-84).

⁵ See footnote 5, Table 20.5.

⁶ See footnote 6, Table 20.5.

20.7 Cases heard by youth courts for federal statute offences, by disposition and sex, 1986-87^p

Most significant disposition ¹		Nfld.	PEI	NS	NB	Que.	Man.	Sask.	Alta.	BC	YT	NWT	Total ²
Secure custody	M	320	..	202	265	1,092	362	410	986	771	14	..	4,422
	F	17	..	5	17	27	25	48	64	76	—	..	279
	T	337	..	207	282	1,119	387	458	1,050	847	14	..	4,701
Detain for treatment	M	—	..	7	3	25	3	3	1	8	—	..	50
	F	—	..	—	2	1	—	3	—	2	—	..	8
	T	—	..	7	5	26	3	6	1	10	—	..	58
Open custody	M	159	..	285	154	718	490	528	1,224	806	26	..	4,390
	F	31	..	23	7	15	36	71	114	69	4	..	370
	T	190	..	308	161	733	526	599	1,338	875	30	..	4,760
Probation	M	1,189	..	1,123	948	2,498	1,300	1,807	3,604	4,312	70	..	16,851
	F	138	..	170	98	148	243	416	725	828	22	..	2,788
	T	1,327	..	1,293	1,046	2,646	1,543	2,223	4,329	5,140	92	..	19,639
Fine	M	134	..	405	62	897	482	297	1,731	641	5	..	4,654
	F	10	..	98	5	54	68	59	384	60	3	..	741
	T	144	..	503	67	951	550	356	2,115	701	8	..	5,395
Compensation	M	14	..	3	—	53	16	2	105	14	—	..	207
	F	—	..	—	—	3	3	—	6	2	—	..	14
	T	14	..	3	—	56	19	2	111	16	—	..	221
Pay purchaser	M	—	..	—	—	51	—	—	—	—	—	..	51
	F	—	..	—	—	2	—	—	—	—	—	..	2
	T	—	..	—	—	53	—	—	—	—	—	..	53
Compensation (kind)	M	1	..	—	—	6	—	2	13	2	—	..	24
	F	—	..	—	—	1	—	—	2	—	—	..	3
	T	1	..	—	—	7	—	2	15	2	—	..	27
Community service order	M	24	..	47	9	488	253	187	911	65	2	..	1,986
	F	1	..	15	1	34	85	57	274	15	—	..	482
	T	25	..	62	10	522	338	244	1,185	80	2	..	2,468
Restitution	M	6	..	17	16	18	80	26	41	15	1	..	220
	F	—	..	—	1	2	6	3	3	1	—	..	16
	T	6	..	17	17	20	86	29	44	16	1	..	236
Prohibition seizure	M	—	..	1	—	5	—	3	5	1	2	..	17
	F	—	..	—	—	—	—	1	2	—	—	..	3
	T	—	..	1	—	5	—	4	7	1	2	..	20
Absolute discharge	M	108	..	91	50	137	67	168	450	134	3	..	1,208
	F	21	..	37	13	27	37	54	166	53	1	..	409
	T	129	..	128	63	164	104	222	616	187	4	..	1,617
Other ³	M	9	..	58	16	13	73	47	67	21	—	..	304
	F	1	..	17	5	2	21	17	18	5	—	..	86
	T	10	..	75	21	15	94	64	85	26	—	..	390
Total cases with guilty findings ⁴	M	1,964	..	2,239	1,523	6,001	3,126	3,480	9,138	6,790	123	..	34,384
	F	219	..	365	149	316	524	729	1,758	1,111	30	..	5,201
	T	2,183	..	2,604	1,672	6,317	3,650	4,209	10,896	7,901	153	..	39,585

¹ The most significant disposition for a case, whether for one charge or more than one, is that which has the greatest impact on the living situation of the young person.² Does not include Ontario, data not available.³ "Other" includes other dispositions such as essays, apologies or counselling programs.⁴ A case consists of one or more charges laid against a young person which were presented to the court at the same time and disposed of in the fiscal year specified. If the same young person reappears in court on a different date on a new set of charges, this will constitute another case.

20.8 Average offender caseload in Canadian corrections¹, 1983-84 to 1986-87

Average actual caseload	Year	Provincial corrections	Federal corrections	Canada total
Custodial ²	1983-84	17,157	10,438	27,595
	1984-85	16,242	10,857	27,099
	1985-86	16,663	11,214	27,877
	1986-87	15,657	11,106	26,763
Non-custodial ³	1983-84	77,159	7,269	84,428
	1984-85	70,972	7,247	78,219
	1985-86	74,926	7,317	82,243
	1986-87	69,755	8,265	78,020
Total	1983-84	94,316	17,707	112,023
	1984-85	87,214	18,104	105,318
	1985-86	91,589	18,531	110,120
	1986-87	85,412	19,371	104,783

¹ Includes the offender caseload handled by both the federal and provincial governments combined but excludes offenders in municipally operated corrections.

² Refers to actual count and therefore excludes inmates temporarily not in custody at the time of count. In 1986-87 approximately 3,525 provincial and 1,544 federal inmates fell into this category.

³ Figures for the federal non-custodial population include full parole, day parole and mandatory supervision counts.

20.9 Caseload characteristics, provincial and federal corrections, fiscal year 1986-87

Jurisdiction	Sentenced admissions				
	Total number	Female %	Male %	Median age ¹	Median sentence
Provincial corrections					
Custodial	116,269	6	94	27 yrs	22 days
Probation	67,133	17	83	25 yrs	11 months
Federal corrections ²	3,741	2	98	29 yrs	44.2 months
Canadian adult population ³	18,760.8	51	49	39 yrs	...

¹ The age reported here for federal corrections is "mean age".

² Excludes releases to parole and mandatory supervision.

³ Based on postcensal estimates in June 1986.

Sources

20.1 - 20.4 Law enforcement program, Canadian Centre for Justice Statistics, Statistics Canada.

20.5 - 20.7 Youth justice program, Canadian Centre for Justice Statistics, Statistics Canada.

20.8 - 20.9 Corrections program, Canadian Centre for Justice Statistics, Statistics Canada.

CHAPTER 21

**EXTERNAL RELATIONS,
TRADE AND DEFENCE**

CHAPTER 21**EXTERNAL RELATIONS, TRADE AND DEFENCE**

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CANADIAN TRADE BALANCE, 1987

Canada accounts for about 4% of the world's total trade. The United States is Canada's main trading partner, both as a market for our exports (\$94.5 billion) and as a source of our imports (\$79.1 billion). Canada's largest trade surplus is with North America (\$15.5 billion), while the largest deficit is with Western Europe (\$5.0 billion).

Trade with Western Europe and Asia is increasing in importance, with imports from these two areas growing at a much faster rate than our exports to them.

Note: Arrows pointing away from Canada indicate a trade surplus; arrows pointing toward Canada indicate a trade deficit.

CHAPTER 21

EXTERNAL RELATIONS, TRADE AND DEFENCE

21.1 Canada's external operations

In the 1980s, considerable changes have occurred in the conduct of Canada's external relations. In April 1981, responsibility for the immigration program abroad was transferred to the Department of External Affairs, together with the foreign service staff of the Canadian Employment and Immigration Commission. These programs include the recruitment of immigrants, the admission of refugees and the entry into Canada of tourists, students and temporary workers. Similarly, the field staff of the Canadian International Development Agency (CIDA) was brought into the department.

In January 1982, the federal government effected a major reorganization of its economic and external affairs departments, moving the international trade policy and trade promotion functions of the former Department of Industry, Trade and Commerce to External Affairs.

As a result of these changes, the mandate and responsibilities of External Affairs have been expanded to incorporate the full spectrum of Canada's international relations, including foreign policy, trade, immigration and aid. In addition, the department provides administrative support to the foreign operations of other departments, and represents the international interests of other departments which are without operations abroad.

In the past several years, the department has undergone several organizational adjustments aimed at integrating more closely the political, economic and trade functions of the department, and streamlining the delivery of programs abroad.

In January 1986, various units of the department performing intelligence functions were reorganized into a new foreign intelligence bureau. The bureau is responsible for providing the department and the government with political and economic intelligence relating to the capabilities, intentions or activities of foreign states and persons.

21.2 Canada's international status

The growth of Canada's international presence is reflected in the development of the Department of External Affairs since its establishment in 1909. Until the 20th century Canadian negotiations with foreign countries were conducted through the British foreign office and dealings with other parts of the Empire through a colonial office. The gradual recognition of Canadian autonomy in international affairs and increased Canadian responsibilities abroad made expansion of services and representation after World War I inevitable and necessary. An important step in the evolution of Canada's international status was an agreement reached at the 1926 Imperial Conference allowing for Canadian sovereignty in international negotiations and affairs.

In the 1920s, Canada established its own diplomatic relations with several countries, including the United States, France and Japan. In 1987, there were 115 diplomatic and consular missions in 82 countries; many Canadian embassies and high commissions are accredited to two or more governments, thus permitting Canada to maintain diplomatic relations with 84 additional countries, including 32 honorary consulates. One hundred and one countries have diplomatic missions in Ottawa and another 48 states have non-resident accreditation.

Membership in international organizations has entailed establishment of permanent Canadian delegations to the United Nations in New York and at the organization's European headquarters in Geneva. There are also permanent Canadian missions to UN agencies in Paris; the Mutual and Balanced Force Reduction Talks, Vienna; the North Atlantic Treaty Organization, Brussels; the Organization for Economic Co-operation and Development, the International Energy Agency, and the United Nations Educational, Scientific and Cultural Organization, Paris; and the European Community, Brussels. Canada also maintains a permanent observer status in the

Organization of American States. In addition, officials of the Department of External Affairs represent Canada at many international conferences, such as the Review Conference on Security and Co-operation in Europe which began in Vienna in November 1986.

Today, Canada's status is reflected in international negotiations on such vital issues as human rights, the environment, disarmament, law of the sea, energy management and nuclear non-proliferation.

Federal-provincial aspects. A federal-provincial co-ordination office in External Affairs Canada maintains liaison with the provinces to facilitate their necessary international activities in a manner that meets provincial objectives and preserves the coherence of Canadian foreign policy. The federal government's foreign policy includes recognition of legitimate provincial interests beyond national borders and continued promotion of national unity through adequate international projection of Canada's bilingual character. The co-ordinating role of the office also includes overseeing the department's information service to the provinces, which keeps the latter informed of important Canadian foreign policy and operational developments.

Provincial participation at international conferences and in the work of international organizations is provided for by including provincial officials on Canadian delegations and by canvassing provincial governments for their views on positions and attitudes that Canada adopts on subjects treated by these organizations. These include areas of particular interest to the provinces such as human and civil rights, education, culture, health, agriculture, labour and environment.

Other international interests of the provinces include promotion of trade, investment, industrial development, immigration, tourism, cultural exchanges, environmental questions, science and technology. In this regard, promotional activities of the provinces and their interests in international activities have led to an increased number of provincial offices and visits abroad. The office is therefore involved in providing assistance with regard to a number of specific provincial activities abroad, such as opening of offices, visits of premiers and delegations, as well as making arrangements for visits of foreign visitors to the provinces. A main task for the office is to liaise and co-operate with these offices abroad in order to ensure smooth relations with foreign governments. The office's responsibilities also involve close consultations regarding negotiations on the signing by provincial governments and foreign entities of memoranda of understanding,

arrangements, and understandings. In addition, the office acts when necessary or appropriate as point of contact for provincial requests for departmental services.

Treaty-making powers. The federal government has exclusive responsibility for Canada's external affairs. There are frequent consultations between federal and provincial governments regarding treaties of provincial interest and responsibility.

Once it has been determined that what a province seeks through understandings, in fields of provincial jurisdiction, meets with Canadian foreign policy, provision is often made for direct provincial participation in negotiating with the authorities of the foreign country. International agreements having legal effect in public international law, however, can be achieved only through the federal power to conclude treaties.

Foreign operations. The Department of External Affairs Canada receives and analyzes diplomatic and consular reports and statistics; negotiates consular conventions and multilateral and bilateral agreements; monitors legislative developments which affect the status of Canadian citizens abroad; provides a link with other government services such as immigration, refugee matters and citizenship; trains foreign service personnel; provides instructions to posts abroad; recommends appointments of honorary consuls; evaluates services provided; manages Canada's immigration program abroad; and co-ordinates external aspects of immigration policies and programs.

Trade services. External Affairs Canada is responsible for maintaining and furthering an international trading climate favourable to Canadian exporters and other economic interests and for policies and programs to safeguard and advance Canada's international trading interests. As the primary federal government contact with foreign governments and international organizations which influence trade, it consults with such governments and organizations and works closely with other federal government departments, Crown corporations and agencies, the provinces, and business and academic communities to achieve these objectives.

The trade commissioner service became part of External Affairs Canada in 1982, with 91 offices in 67 countries either directly in embassies and high commissions or in separate premises. Its primary role is to promote Canada's export trade and to protect Canada's commercial interests abroad.

External Affairs also administers the policies of Tourism Canada abroad and provides advice on questions about consular activities.

Consular and immigration affairs. While the Employment and Immigration Commission has overall responsibility for immigration policy development and program design, the Department of External Affairs Canada is responsible for the delivery of the overseas component of the program. The intake of refugees and other immigrants is managed through annual levels set by the government, after extensive consultations across Canada. Over 200 visa officers, located at 65 posts, select not only potential immigrants but also those seeking temporary entry to study, work or visit Canada. In 1987, a total of 138,442 immigrants and 431,768 visitors were issued visas overseas.

In managing the program abroad, External Affairs has a role to play in the development of immigration policy by bringing it into the wider context of foreign policy. Visa officers are involved in liaison and consultation with other governments on a range of topics, such as immigration and refugee policies, and demographic and other social policy issues.

As a signatory to the UN Convention on Refugees, Canada has international obligations to meet and a humanitarian tradition to uphold. The administration of the refugee program thus is a major priority in the delivery of the immigration program abroad. In 1987, visa officers abroad selected and processed over 21,000 displaced persons under the refugee and designated class provisions of the Immigration Act and Regulations.

Large numbers of Canadians travel and reside in other countries. Through its diplomatic and consular missions, the department serves their needs for passports, citizenship documents and notarial services, and gives advice and assistance on a wide range of Canadian and foreign matters. It also helps Canadians who find themselves in distress while abroad, whether through loss of money and travel documents, arrest and imprisonment, illness or death, civil disturbances, natural disasters, or other troubles.

Passport services. Passports are issued to Canadian citizens through the main passport office in Hull and through offices in St. John's, Halifax, Fredericton, Montreal, Saint-Laurent, Quebec City, Ottawa, Toronto, North York, Scarborough, Hamilton, London, Windsor, Winnipeg, Saskatoon, Calgary, Edmonton, Vancouver and Victoria. New passport offices are scheduled to open in Regina, Thunder Bay and Jonquière. Abroad, the service is provided through Canadian diplomatic and consular missions. Certificates of identity are issued in Canada

to eligible legally landed non-Canadians. United Nations refugee travel documents are issued in Canada to residents eligible under the UN refugee convention.

21.3 Multilateral activities

21.3.1 Canada and the Commonwealth

The Commonwealth has evolved into an international association of 48 sovereign nations embracing approximately one-quarter of the earth's surface and one billion of its people, who are diverse in race, colour, creed and language. Comprising both developed and developing countries, the Commonwealth represents a unique association whose members share many of the same traditions, political and social values, attitudes and institutions. All members collectively subscribe to certain common ideals known as the Declaration of Commonwealth Principles. Commonwealth membership is not an alternative, but a complement to other forms of international co-operation — its members believe in and work for the success of the United Nations. As well, most of them belong to other international organizations and to regional associations of states.

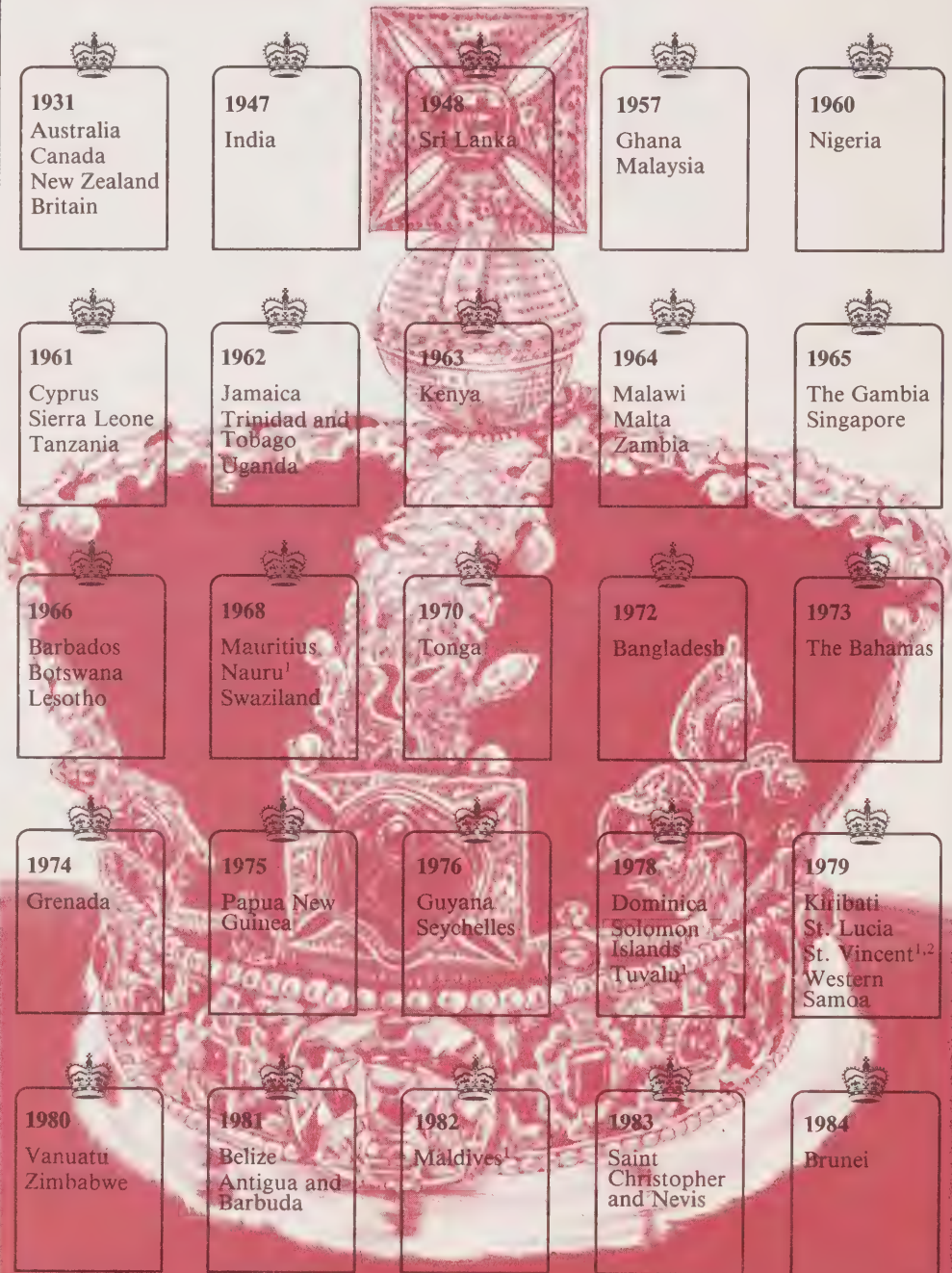
Membership in the Commonwealth and pursuit of its work and goals are an important aspect of foreign policy. Canadian objectives have remained constant: to strengthen the association and its contributions to international peace and progress, and to assist its development as a vehicle for consultation and practical co-operation. In recent years, the needs of the smallest and poorest member countries and of apartheid in South Africa have dominated Commonwealth affairs. The organization has no binding rules; decisions are by consensus rather than formal vote.

The Commonwealth Secretariat in London organizes and services official Commonwealth conferences, facilitates exchanges of information between member countries and brings together their views. Canada pays its share of the budget of the Secretariat and contributes to many other Commonwealth institutions and programs, including the Commonwealth fund for technical co-operation, the Commonwealth youth program, the Commonwealth foundation, the Commonwealth scholarship and fellowship plan and the Commonwealth science council.

Canada was host to a meeting, in Vancouver, of the Commonwealth heads of government in October 1987 — the first occasion for such a Commonwealth conference to be held in Canada since 1973. One of the results of the Vancouver meeting was an agreement to create the Commonwealth

Chart 21.1

Commonwealth countries



¹ Special member. ² Includes the Grenadines.

Chart 21-2

La Francophonie**MEMBER COUNTRIES**

Belgium
Benin
Burkina Faso
Burundi
Canada
Central African Republic
Chad
Comoro Islands
Congo
Djibouti
Dominica
France
Gabon
Guinea
Haiti
Ivory Coast
Lebanon
Luxembourg
Mali
Mauritius
Monaco
Niger
Rwanda
Senegal
Seychelles
Togo
Tunisia
Vanuatu
Vietnam
Zaire

ASSOCIATE COUNTRIES

Cameroon
Egypt
Guinea-Bissau
Laos
Morocco
Mauritania
St. Lucia

**PARTICIPATING
GOVERNMENTS**

New Brunswick
Quebec

of Learning, an agency to promote Commonwealth co-operation in distance education, with headquarters in Vancouver.

21.3.2 Canada and "la Francophonie"

Unlike the Commonwealth, "la Francophonie" is not an institutional grouping of countries. The term encompasses a community of countries sharing in various measures the French language and culture, an assembly of heads of state and government, intergovernmental institutions and private organizations.

The federal government represents Canada in these forums, and special participating government status is enjoyed by the provinces of Quebec and New Brunswick within the Agency for Cultural and Technical Co-operation, the main international francophone organization. With the provinces, Canada also participates in two major francophone ministerial conferences, the conference of ministers of youth and sports, and the conference of ministers of education. Quebec and New Brunswick are also represented by their Premiers at the meetings of heads of state and government, using French as a common language. The first such meeting took place in Paris in February 1986, and the second was held in Quebec, in September 1987. Within the context of "la Francophonie", various non-governmental professional associations work toward forming closer relations among their members and furthering the interests of francophone countries, especially in the Third World. The first two summits of heads of state and government of countries using French as a common language gave the international francophone community a real instrument of co-operation and interchange in the political, economic and co-operative fields. In this manner "la Francophonie", like the Commonwealth, is becoming a rallying point around which solutions to the major international problems may be sought. It provides Canada with an excellent framework for co-operation and dialogue with the industrialized countries, and with some of the poorest among the developing countries.

Belonging to "la Francophonie" is an excellent means of promoting the French fact in Canada by giving it an international dimension, and of strengthening Canadian unity by way of involving those provinces which have recognized French as an official language with the federal government.

21.3.3 Canada and the Economic Summits

The Economic Summit meetings of the leaders of the seven major industrialized democracies and

the European Community have been held annually since 1975 (Canada and the European Community began their participation in 1976 and 1977, respectively). The Economic Summit has no permanent home or secretariat. Summit sites and organizational responsibilities are rotated among the member nations.

The original concept was to have leaders discuss economic subjects outside the usual institutional framework. Fostering personal contact among leaders to bring about progress on the issues facing the world has remained an important objective of Economic Summits. Summits have brought key leaders together in a group that is powerful enough to have an important bearing on significant developments, both economic and political, in the world, yet small enough to make open and direct discussions possible.

These yearly meetings are the most visible elements of a broader, complex process of international consultation and co-operation in the management of the world economy. The Summits are closely linked to work done in other international forums including the International Monetary Fund/International Bank for Reconstruction and Development (IMF/IBRD), the General Agreement on Tariffs and Trade (GATT), the Organization for Economic Co-operation and Development (OECD) and the Group of Seven Finance Ministers. The continuing objective of Summits has been to work toward compatible macroeconomic policies to foster balanced non-inflationary global growth. All Economic Summits have emphasized the interrelationship of world problems. Economic growth, employment, inflation, energy, debt and the maintenance of a liberal trading environment are all facets of an interdependent world economy. Summits recognize the close connection between the prosperity of the industrialized countries and that of the developing world.

21.3.4 Canada and the OECD

The Organization for Economic Co-operation and Development (OECD) was established in Paris in September 1961. It succeeded the Organization for European Economic Co-operation (OEEC) founded in 1948 by the countries of Western Europe to facilitate reconstruction of their war-shattered economies and to administer the Marshall Plan. In the OECD, Canada and the United States and later Japan, Australia and New Zealand joined with countries of Western Europe to form a major intergovernmental forum for consultation and co-operation among the industrialized nations.

The aim of the OECD is to facilitate the formulation of policy conducive to stability, balanced economic growth and social progress of both member and non-member countries. Over past years, the OECD has broadened its activities to include almost every aspect of economic and social policy in modern society.

The International Energy Agency (IEA), established within the framework of the OECD in 1974, plays a role in four main areas: emergency oil sharing, consultations on the oil market, promotion of the accelerated development of new sources of energy, and relations between oil-consuming and oil-producing countries. Another agency of the OECD, the Nuclear Energy Agency founded in 1972, has been involved in the co-ordination and exchange of views of the technical aspects of nuclear power.

The OECD brings together government officials and representatives of business, labour, universities and other non-governmental sectors at the international level.

21.3.5 Canada and the United Nations

Since the inception of the United Nations, support for the UN system has been an integral part of Canadian foreign policy. Canada has played a significant role in the General Assembly, the Security Council and a number of its special committees. In 1987, the General Assembly had 157 members.

On the occasions when military personnel have been dispatched under the UN flag to deal with threats to peace and security, Canada has participated in providing personnel and equipment.

Canada has also served at regular intervals on the third principal organ of the UN, the Economic and Social Council. Generally, two sessions of the Council are held annually, one in New York, in the spring, to discuss social and humanitarian questions, and one in Geneva, in mid-summer, to examine economic questions including food problems and international co-operation.

The UN, with strong Canadian support, continues to devote considerable time and effort to the promotion and protection of human rights. Following the entry into force of the UN Convention Against Torture in 1987, the first meeting of the committee which monitors implementation of the Convention met in April 1988. A draft convention on the rights of the child is under active negotiation and has received the full support of the Canadian government and several provincial authorities, who are active in the process of contributing to Canadian positions in the negotiating process. Canada has also initiated action in the

Commission on Human Rights to ensure more effective implementation of all human rights instruments. Canada was elected to the Commission in 1988 for a three-year term of office which began in January 1989.

Canada has also given strong support to UN efforts to come to grips with the problem of illicit drug trafficking and drug abuse. Canada is a major donor to the UN Fund for Drug Abuse Control, and will be participating actively in the Vienna Conference to draft a new international Convention on Illicit Trafficking.

Canada is among the major contributors to the UN budget. In terms of the overall UN system, including both voluntary and assessed contributions, Canada, in 1987, was the fourth largest contributor. Canada makes voluntary contributions to the United Nations development program, the United Nations high commission for refugees, the United Nations children's fund, the United Nations relief and works agency for Palestine refugees, the world food program, the United Nations institute for training and research, the United Nations educational and training program for southern Africa, the United Nations fund for population activities, the committee on racial discrimination, the trust fund for South Africa and the fund for drug abuse control. The United Nations development program is one of the largest of these, and has a team leadership function in co-ordinating development activities in the UN system.

Canada and disarmament. Canada is an active participant in all principal multilateral forums, including the United Nations First Committee and Disarmament Commission, the Conference on Disarmament in Geneva and the new talks on confidence building and conventional stability in Vienna. Canada also took part in the Stockholm conference on confidence- and security-building measures and disarmament in Europe that concluded in September 1986 with a consensus document containing a set of confidence-building measures in relation to certain kinds of military activity in Europe. Canadian arms control objectives are also pursued through bilateral consultations with countries from East, West and the neutral and non-aligned states that are active in arms control and disarmament affairs. Canada is fully supportive of the objectives of the bilateral US/USSR negotiations on nuclear and space arms in Geneva and is encouraging both parties to come to further agreements in both negotiations.

Canadian priorities in the arms control and disarmament field are: negotiated radical reductions in nuclear forces and the enhancement of

strategic stability; maintenance and strengthening of the nuclear non-proliferation regime; negotiation of a global chemical weapons ban; support for a comprehensive test ban treaty; prevention of an arms race in outer space; and the building of confidence sufficient to facilitate the reduction of military forces in Europe and elsewhere.

Canada makes a significant practical contribution to arms control and disarmament by encouraging compliance with existing treaties; developing mechanisms to verify compliance with treaties; and by contributing to the building of confidence between East and West. As part of Canada's program of action for the remaining half of the disarmament decade, the Canadian government provides \$1 million annually to the verification research unit in the Department of External Affairs. This unit focuses on the practical, technical problems linked to verification that must be resolved as a prerequisite to incorporating binding verification provisions in arms control treaties.

Domestically, the Canadian government seeks to enhance the public dialogue on these issues through such means as the office of the ambassador for disarmament, the consultative group on disarmament and arms control affairs, through wide dissemination of *The Disarmament Bulletin*, and through support for non-governmental research and public information activities via the disarmament fund.

21.3.6 UN specialized agencies

Canada is a member of the specialized agencies of the UN, and is the host country of one, the International Civil Aviation Organization. Canada maintains permanent missions to the UN headquarters in New York, Geneva and Vienna to UNESCO in Paris and the IAEA in Vienna. Canada also has accredited representatives to agencies located in Rome (FAO), Nairobi (UNEP) and Vienna (UNIDO). The regular budgets of the UN specialized agencies in 1984 totalled approximately US\$1,084.5 million. Canada's largest contributions were to the WHO, FAO and UNESCO.

WHO (Geneva). The World Health Organization is the largest of the specialized agencies in size of programs. To achieve its purpose of improving the health of the people of the world, WHO carries out programs of training and aid to equip countries to improve their own health services. WHO also provides day-to-day information on major communicable diseases, such as cholera and yellow fever. It has also co-ordinated large-scale industrial research into heart disease and cancer.

Canada has also given substantial financial support to UN efforts, under the aegis of the World

Health Organization, to meet the pandemic outbreak of AIDS.

FAO (Rome). The Food and Agriculture Organization has the second largest budget of any of the specialized agencies. Its purpose is to raise levels of nutrition and improve production and distribution of food supplies from farms, forests and fisheries. The FAO carries out programs of technical assistance in nutrition and food-management, soil-erosion, reforestation, irrigation engineering, pest-control and the use of fertilizers.

UNESCO (Paris). The United Nations Educational, Scientific and Cultural Organization endeavours to promote international co-operation and understanding in the spheres indicated by its name. UNESCO carries out programs designed to increase facilities for education.

ILO (Geneva). The International Labour Organization, established by the Treaty of Versailles, strives to promote social justice by improving labour conditions and living standards. The ILO, in co-operation with management, labour and government, endeavours to establish minimum standards in such fields as social security, wages, hours of work, safety and worker compensation.

ICAO (Montreal). The International Civil Aviation Organization establishes international standards and regulations for civil aviation and promotes the development and planning of international air transport. It has been active in efforts to protect international civil aviation from all forms of terrorist activity. Programs are carried out to improve safety, to simplify procedures for international air travel and transportation, and to aid countries in developing air networks.

ITU. The International Telecommunications Union, oldest of the specialized agencies, is responsible for regulating, co-ordinating and planning international telecommunications in the fields of telephone, telegraphy and broadcasting. ITU co-operates with individual countries in developing telecommunications.

WMO. The World Meteorological Organization was established in 1950 to replace the International Meteorological Organization, formed in 1878. The WMO's primary function is to facilitate the international exchange of weather reports, to aid aviation and shipping, and to help countries establish meteorological services.

UPU. The Universal Postal Union is the second oldest specialized agency. Its purpose is to promote the organization and improvement of postal services and to provide technical assistance as requested.

WIPO. The World Intellectual Property Organization is one of the newest of the specialized agencies, dating from 1974, although its origins can be traced to 1883. It promotes the protection of intellectual property among states and in collaboration with other organizations, and ensures administrative co-operation among the unions previously established to protect intellectual property. The principal unions are the Paris Union (International Union for the Protection of Industrial Property), which dates from 1883, and the Berne Union (International Union for the Protection of Literary and Artistic Works), concluded in 1886.

IMO (London, England). The International Maritime Organization, one of the smaller UN agencies, facilitates co-operation among governments on technical matters affecting international shipping, in order to achieve the highest practicable standards of maritime safety and efficiency in navigation. IMO has a special responsibility for safety of life at sea, and for the protection of the marine environment through prevention of pollution of the sea caused by ships and other craft. IMO co-operates with other international bodies on shipping matters and co-ordinates its activities with other specialized agencies of the UN. It is responsible for convening international conferences on shipping matters and for drafting international conventions or agreements on this subject.

IAEA (Vienna). Although usually treated as a *de facto* specialized agency, the International Atomic Energy Agency is in reality an independent intergovernmental organization under the aegis of the United Nations. The IAEA is empowered to enlarge the contribution of atomic energy to world peace, health and prosperity and, upon request, to apply safeguards to nuclear equipment and material to ensure that they are not diverted to non-peaceful uses. The IAEA has been given responsibility by the United Nations for applying the safeguards called for under the Treaty of the Non-Proliferation of Nuclear Weapons.

UNCTAD. The United Nations Conference on Trade and Development, while not a specialized agency, is an organization which was established by the UN General Assembly in 1964 and which convenes every four years. It has a permanent secretariat located in Geneva and its governing body, the Trade and Development Board (TDB) meets twice annually. Canada is a member of both the Conference and the TDB. UNCTAD was mandated by the General Assembly to consider problems of trade and development, with particular emphasis on the situation of the developing countries.

UNIDO (Vienna). The United Nations Industrial Development Organization achieved specialized agency status in 1979. Its objectives are to promote industrial development and to help accelerate industrialization in the developing countries.

IFAD. Established in 1974, the International Fund for Agricultural Development exists to improve agricultural production, in the broad sense including forestry and fisheries, by financing developing projects.

IMF. The work of the International Monetary Fund since its inception has been directed to facilitating the expansion and growth of world trade and payments as a means of raising world standards of living and fostering economic development. The fund is intended to promote and insure stability and order with respect to exchange rates, as well as to establish mechanisms for balance-of-payments assistance that will enable member countries to correct temporary imbalances with a minimum of disturbance to the international monetary system and their economic development programs. Its assets are available for providing short- and medium-term financing to both developed and developing member countries. Given disturbances in exchange markets in recent years, the volatility of some major currencies and increased divergence of payments positions between countries, the fund has placed increasing emphasis on its role as a centre for international co-operation and consultation. The fund also constitutes an important source of economic advice and technical assistance to developing countries.

IBRD. The International Bank for Reconstruction and Development, with its three affiliates, is empowered to extend loans and credits to all member countries, especially those in the Third World, for projects that bank studies have indicated will make an important contribution to the borrower's economic development. The three organizations differ essentially in the source of their funds and the terms of their loans. The IBRD obtains most of its funds from bonds issued on world capital markets and must, accordingly, lend on competitive terms.

IDA. The International Development Association relies on interest-free advances from governments for the bulk of its resources, and makes loans on highly concessional terms.

IFC. The International Finance Corporation seeks to promote the growth of productive private enterprise in developing member countries by facilitating loans on competitive terms without government guarantee.

MIGA. The Multilateral Investment Guarantee Agency became operational in 1988. Its objective is to encourage the flow of investment by issuing guarantees as well as co-insurance and re-insurance against non-commercial risks.

Related agency — GATT. The General Agreement on Tariffs and Trade is a multilateral treaty, subscribed to by 96 governments which together account for more than four-fifths of world trade. Its basic aim is to liberalize world trade and place it on a secure basis, thereby contributing to economic growth and development and to the welfare of the world's peoples. The General Agreement, which came into force in January 1948, is the only multilateral instrument that lays down agreed rules for international trade. It also functions as a principal international body concerned with negotiating the reduction of trade barriers and other measures which distort competition, and with international trade relations. GATT is thus both a code of rules and a forum in which countries can discuss and overcome their trade problems and negotiate to enlarge world trading opportunities. The Uruguay Round of Multilateral Trade Negotiations was initiated in September 1986. Canada hosted the mid-term review of the Round in Montreal in December 1988.

21.3.7 Financial agencies

The two international financial constitutions noted above, the IMF and the World Bank Group and its affiliates, the International Bank for Reconstruction and Development (IBRD), the International Development Association (IDA), the International Finance Corporation (IFC) and the Multilateral Investment Guarantee Agency (MIGA), are specialized agencies in the multilateral system but are not actually organs or agencies of the United Nations. Membership in the IMF is mandatory for membership in the IBRD, IDA and IFC.

Unlike the UN system, membership in these bodies is not universal. Many countries, particularly the centrally planned economies of Eastern Europe, have not been prepared to accept required reporting procedures relating to balance of payments, gold and foreign exchange positions and other economic indicators.

21.3.8 Canada and international terrorism

The principal thrust of Canada's international counter-terrorism efforts has been to facilitate multilateral co-operation in such forums as the Economic Summit, the International Civil Aviation Organization and the International Maritime Organization. It is equally important for Canadian

terrorism experts to continue to work bilaterally to encourage and facilitate the exchange of terrorism-related information and to enhance other forms of co-operation to improve the ability to detect and prevent terrorist activities directed against Canada and elsewhere.

21.3.9 International environment programs

Canada participates in activities of several intergovernmental and non-governmental international organizations. Among the intergovernmental organizations are many United Nations specialized agencies. Furthermore, Canada is a signatory to several international environmental conventions.

UNEP. Canada is a member of the United Nations Environment Programme, which is the only UN agency established to deal with global and regional environmental issues. It is essentially a co-ordinating and catalyzing body. Its work program includes global environmental monitoring and assessment studies of climate, the atmosphere and the ozone layer; a scientific information exchange and an international register of potentially toxic chemicals; and activities in such areas as desertification, soils, water, terrestrial ecosystems, environmental law, human settlements, health, environment and development, oceans, energy and natural disasters. In 1987, one of UNEP's successes was in co-ordinating the signing of the Montreal protocol on substances that deplete the ozone layer.

WMO. The World Meteorological Organization has seven scientific and technical programs, which include world weather watch, world climate, research and development, applications of meteorology, hydrology and water resources, education and training, and regional activities. Eight technical commissions, composed of experts from member states, are responsible for carrying out the majority of the scientific and technical activities. The commissions deal with hydrology, climatology, meteorology, atmospheric sciences, instruments and methods of observations and basic systems. Canada plays a prominent role in all of the WMO programs and technical activities, and is also directly involved in the activities of the WMO/UNEP intergovernmental panel on climate change, the organizing committee for the second world climate conference, the working group on the accidental release of hazardous materials and the financial advisory committee.

ECE. Under the UN Economic Commission for Europe, Canada participates in the Executive Body of the 1979 Convention on Long Range Transboundary Air Pollution and its working groups,

as well as in the committee on water problems. In July 1985, Canada signed the protocol to the 1979 convention, which called for the reduction of sulphur emissions or their transboundary fluxes by 30% by 1993, at the latest. Another protocol on the control of nitrogen oxide emissions was signed on October 31, 1988 in Sofia, Bulgaria.

UNESCO. The Canadian Commission for UNESCO is the national focal point for UNESCO activities. The Commission encourages national and provincial activities in the environmental field and promotes UNESCO programs of benefit to this country. Canada plays an important role in three UNESCO environmental programs.

The International Hydrological Program (IHP) — Canada is a member and the chairperson of the Intergovernmental Council. Through IHP, Canadians are able to integrate their water research, management and educational activities with international programs.

Man and the Biosphere Program (MAB) — Canada is a member of the International Coordinating Council and has been effective in promoting social and environmental science concerns within MAB. Four MAB biosphere reserves have been established, and a fifth is being proposed.

World Heritage Convention — Canada has established 10 World Heritage Sites (six natural and four cultural) in support of this international convention, and currently chairs the World Heritage Committee.

IMO. Canada is a contracting party to the International Maritime Organization's International Convention for the Prevention of Pollution from Ships and to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (the London Dumping Convention). Canada participates in the marine environment protection committee and the consultative committee of the London Dumping Convention. These international committees review and revise policies to meet the intent of these conventions.

WHO. Following the 1974 agreement between Canada and the World Health Organization, the National Water Research Institute was designated as a WHO international collaborating centre on surface and groundwater quality. Its major activities include: the global co-ordination of water pollution monitoring; the publication of the quarterly journal *Water Quality Bulletin*; and aid in co-ordination of technical assistance programs in developing countries.

OECD. The Organization for Economic Co-operation and Development was founded in 1960 to promote economic and social welfare through-

out the OECD area by assisting member states in policy formulation and co-ordination. Canada participates in the environment committee and its working groups, which cover such areas as chemicals, energy, waste management, natural resource management, economy and environment, and the state of the environment. Projects on existing chemicals, chemical accidents with transboundary implications and transboundary movements of hazardous wastes are among the priorities for Canada.

IUCN. The International Union for Conservation of Nature and Natural Resources (the World Conservation Union), comprises 61 state governments (including Canada) and 128 government agencies, as well as 383 non-governmental organizations in its membership. The IUCN was founded in 1948 for the promotion of international co-operation in the conservation and management of natural resources. Recently, it prepared the *World Conservation Strategy* which emphasized the need for a broader, more integrated approach to economic development through the conservation of living resources. IUCN is a technical adviser to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the World Heritage and Wetlands Conventions.

21.4 Activities by region

21.4.1 The United States

There is no more important external relationship for Canada than that with the United States. Geography, history, trade and close cultural ties account for the extraordinary degree of interdependence which exists. Canada and the United States are each other's best customer by far. In 1987, Canada sold 76% of its exports (\$96.3 billion) to the US, and bought 23% of US global exports. This basic ratio was carried over into 1988. In an effort to ensure and extend our access to the US market, the government concluded a Free Trade Agreement with the United States which was signed by the President of the US and the Prime Minister of Canada in January 1988.

Due to the wide range of issues that arise at the official level, many consultative mechanisms have been developed. Most notable are the annual Summits between the Prime Minister and the President and the quarterly meetings between the Secretary of State for External Affairs and the US Secretary of State. There are a whole range of contacts by other ministers, including those in provincial and state governments, and parliamentary contacts are frequent. Other

consultative mechanisms cover such sectors as the environment, defence, energy, fisheries, transport and trade.

21.4.2 The Caribbean

Since Canada signed a trade and economic agreement with the countries of the Commonwealth Caribbean market (CARICOM) in 1979, Canada's tangible commitment to this region has increased. In 1985, the Prime Minister announced that the Caribbean was a major priority for Canadian aid and development, and agreed to establish CARIBCAN, an economic and trade development assistance program. Its main features include extension of nearly 100% duty-free access to Canada of Caribbean products, and provision of facilities to strengthen their export capabilities.

Over the five-year period, 1984-88, aid to the Caribbean amounted to \$305.9 million, the highest per capita Canadian aid disbursements in the world. Canada is a founding non-regional member of the Caribbean Development Bank, and has a 12.5% share of the ordinary capital.

The Canadian public continues to follow extremely closely Haiti's path toward political stability. Canada's aid to Haiti is now channelled exclusively through non-governmental and multilateral organizations.

21.4.3 Latin America

Canada's ties with Latin America are continuing to expand and diversify. Through its observer status in the Organization of American States and full membership in a number of other inter-American institutions, as well as through the bilateral diplomatic relations it maintains with all the countries of Latin America, Canada has actively promoted wide political, economic and human contacts with the region.

At the political level, Canada has emphasized its full support for the revitalization of democratic institutions in Latin America, and for a resolution of the conflicts in Central America. The Secretary of State for External Affairs visited the latter area in November 1987 and reiterated Canadian willingness to offer practical assistance to the Esquipulas peace process, which had been given new momentum in August 1987, with the signing of the Esquipulas Peace Agreement by the five presidents of Central America.

Trade continues to be a major theme in Canadian relations with Latin America. As Latin America's recovery from the recession of the early 1980s has been hampered by the region's debt problems, Canada has worked closely with its hemispheric neighbours through multilateral

financial institutions to assist in formulating strategies to address the debt challenge in both the public and private sectors.

Another noteworthy feature of Canada's expanding relationship with Latin America is the growing number of immigrants from that region. In 1987, a total of 17,694 Latin American immigrants of all categories (including 4,321 refugees) were admitted to Canada, compared to 6,213 (including 437 refugees) in 1980.

21.4.4 Europe

Canada's historical, cultural and social ties with Western Europe are reinforced by a shared commitment to its security through membership in NATO and have been further strengthened in recent years through increasing economic, financial, trade and commercial relations. The European Economic Community, enlarged to 12 member states in 1986, has become the world's largest trading entity. It has launched an ambitious program aimed at the completion of a unified single market by 1992.

Western Europe is one of Canada's fastest growing export markets. Significantly, almost 60% of Canadian exports to Western Europe are higher value added goods, and five of Canada's top 10 markets are situated in Europe. Western European partners constitute Canada's largest overseas source of investments, technology and joint venture opportunities. Four of Canada's six Economic Summit partners are from Western Europe.

Canadian and Western European citizens, governments, private and public organizations, associations, institutions and corporations are, in increasing numbers, jointly involved in activities spanning a wide range of Canada's national interests: political consultations, security and defence co-operation, joint research and development activities, arts and cultural exchanges, investment, tourism and immigration flows. They all contribute to a relationship that is rich and diversified.

Canada seeks to expand dialogue with the Soviet Union and Eastern Europe across the entire spectrum of political and economic relations. Canada's objective is to build bridges of understanding, confidence, and security but at the same time to pursue specific Canadian objectives: improvement in the human rights practices of some Warsaw Pact countries; expansion of human contacts, including family reunification and travel; academic and cultural exchanges; and assisting Canadian business to pursue the opportunities presented by greater openness in the USSR and Eastern

Europe. An important element of Canadian policy is the Conference on Security and Co-operation in Europe, which deals with security questions, economic co-operation, human rights and humanitarian issues between East and West.

21.4.5 The Middle East

Heightened public interest in this region followed the visit of the Secretary of State for External Affairs in 1986. Recently, this interest has been further strengthened by a number of high level visits to and from the region. During the course of the Palestinian uprising in the occupied territories, Canada has continued its policy of balanced objectivity, seeking to encourage practical measures which can help the parties concerned to move toward a settlement.

On July 18, 1988, Iraq and Iran accepted United Nations Security Council Resolution 598, which provides a framework for a negotiated settlement to the Gulf war. This ceasefire, which was warmly welcomed by Canada, was followed by the creation of a UN peacekeeping force, United Nations Iran-Iraq Mission of Goodwill (UNIIMOG), in which Canadian troops played a prominent role. During 1988, Canada reopened its embassy in Iran, Canada's second largest trading partner in the Middle East, after Saudi Arabia.

Canada has continued an important bilateral development assistance program in Egypt, while beginning a smaller one with Jordan.

The concentration of the energy and attention on the Gulf war, together with relatively depressed oil prices, has had an adverse impact on developmental projects and regional employment opportunities. Employment receipts, a major hard currency source for many Middle East labour surplus countries, have remained low. With the ceasefire in the Gulf war in July 1988, there are now significant prospects for opportunities for the export of Canadian goods and services. Key sectors such as electronics, telecommunications, avionics, oil and gas, power generation and distribution, educational services and training offer the highest prospects for success in the near term. Middle Eastern countries are becoming increasingly aware of Canada's excellent reputation as a competitive and reliable exporter and source of advanced technological expertise.

Immigration from the Middle East to Canada remains at a high level.

21.4.6 Africa

Direct relations were established with former British colonies in Africa as they became independent members of the Commonwealth. Increasing

contacts and diplomatic relations with the newly independent French-language African states soon followed. Canada now maintains diplomatic relations with almost all the independent African states through resident Canadian missions in several countries, most of them having dual or multiple accreditation. The development of diplomatic and commercial relations has been accompanied by a significant and growing program of Canadian development assistance to Africa. There has also been growth in trade, technical assistance and cultural exchanges. Efforts to press for an end to apartheid in South Africa are a major priority.

21.4.7 Asian and Pacific region

The Asia-Pacific region has emerged as an area of great political, economic, cultural and strategic significance for Canada. A total of 43% of Canada's offshore exports go to the region. The area is home to 58% of the world's population, and five of the top 15 exporting nations. Approximately 50% of new immigrants to Canada are from the Asia-Pacific region.

Japan, Canada's second largest trading partner, a major capital exporter and a source of technology, is a top priority for Canadian attention. Canada exports more to Japan than to the next four largest export markets combined. The top 21 financial institutions in the world are all Japanese. Japanese portfolio investment in Canada exceeds \$35 billion.

Relations with Japan were enhanced by the two visits that Japanese Prime Minister Takeshita made to Canada in 1988. Underpinning the relationship are 22 consultative mechanisms which provide avenues for discussion of vital Canadian interests.

Canada reviewed its relations with China in response to the events of June 1989 in Beijing. The People's Republic of China remains an important global partner for Canada however, and Canada continues to value its longstanding relationship with China. Canada wishes to maintain the people-to-people contacts, characterized by the wide range of exchanges across the cultural, scientific, technological and academic spectrum which have steadily developed over the past 10 years. CIDA's development assistance program is assisting in Chinese efforts to improve the living standards of the Chinese people. Canadian exports to China in 1989 were expected to be reduced from 1988, but China will remain Canada's second largest trading partner in Asia.

Canada-Korea relations have flourished in the 1980s. In 1987, Korea was Canada's fifth largest bilateral trading partner and good growth was maintained in the first six months of 1988.

Liberalization of Korean import regulations has recently provided new export opportunities for Canadian products. Entrepreneurial immigration to Canada from Korea is growing, and Korea's new affluence has contributed to an increase in tourism.

Canada's bilateral relations with the individual countries of South East Asia feature both development assistance and commercial interest. A further dimension has been added in the evolution of Canada's relationship with the Association of South East Asian Nations (ASEAN). Indonesia, Singapore, Malaysia, Thailand, the Philippines and recently Brunei have, through their participation in ASEAN, indicated an increased willingness to co-operate for their mutual benefit. In formal meetings with ASEAN representatives since 1976, Canada has continued to express interest and support for this organization in its efforts to promote broad regional development and increase stability in the area. Canada has assisted the ASEAN countries in coping with the Indochinese refugee burden by accepting over 100,000 refugees since 1975.

Relations with Australia and New Zealand are deeply rooted in similar institutional, legislative and judicial experience. Canada co-operates extensively with both countries in multilateral economic and political forums, particularly in the area of trade in agricultural products and disarmament. The bilateral relationship is solidly based on substantial two-way trade, with both Australia and New Zealand representing important and growing markets for semi- and fully-manufactured products. Canada is also establishing more concrete linkages with the island nations of the South Pacific.

India's gathering economic strength and geopolitical significance, underlined in the June 1986 Report of the Special Joint Committee on Canada's International Relations, are factors in the formulation of Canadian foreign policy in Asia. Pakistan, Bangladesh and Sri Lanka have received substantial Canadian support in aid and development projects. Fundamental to the pursuit of specific Canadian policy concerns is the continuing political dialogue with countries in the area. The formation, in 1985, of the South Asian Association for Regional Co-operation (SAARC), composed of Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan and Sri Lanka, should serve to enhance regional co-operation and lessen tensions among member countries.

21.5 International trade

21.5.1 International trade statistics

Importers or exporters, or their agents, are required to declare, on specified forms and at the nearest

customs ports, the particulars of goods entering or leaving Canada. Copies of these declarations are sent via the Department of Customs and Excise to the International Trade Division of Statistics Canada where the data from these declarations are processed to produce statistics on merchandise trade.

Merchandise trade is defined as the movement of goods into or out of Canada which add to or subtract from the stock of material resources in Canada. Thus goods which enter or leave Canada on a temporary basis are excluded from trade data.

Goods are valued at the transaction price, i.e. the actual selling price or transfer price. Exports' values normally reflect the FOB (free on board) value at the point at which they are put aboard a carrier either at the port of clearance or at the place of lading. Import values are the FOB transaction value at the foreign port of export, and should exclude freight, insurance and other costs required to bring the goods to Canada. In practice, both imports and exports may include some transportation and other costs which cannot be readily identified.

Merchandise trade data, as compiled from customs entries, are on a "customs basis". Adjustments are made to render them suitable for use in the balance of payments. These adjustments are made for reason of coverage, valuation or timing. Coverage or valuation adjustments include deductions made from exports and imports of automotive parts for retroactive value adjustments and for special tooling and other charges. The timing adjustments are made to account for a time lag in the reporting of data covering trade in electrical energy; exports of crude petroleum and natural gas; and imports of "swap oil" from the United States. Other adjustments include the results of the Canada/United States trade reconciliation exercise (Table 21.7) and the sale to non-residents of goods (particularly gold) which do not leave the country. Merchandise trade data, including the required adjustments, are on a balance-of-payments basis. The data in the statistical tables of this chapter are on a balance-of-payments basis unless otherwise indicated.

21.5.2 Highlights of international trade, 1983-87

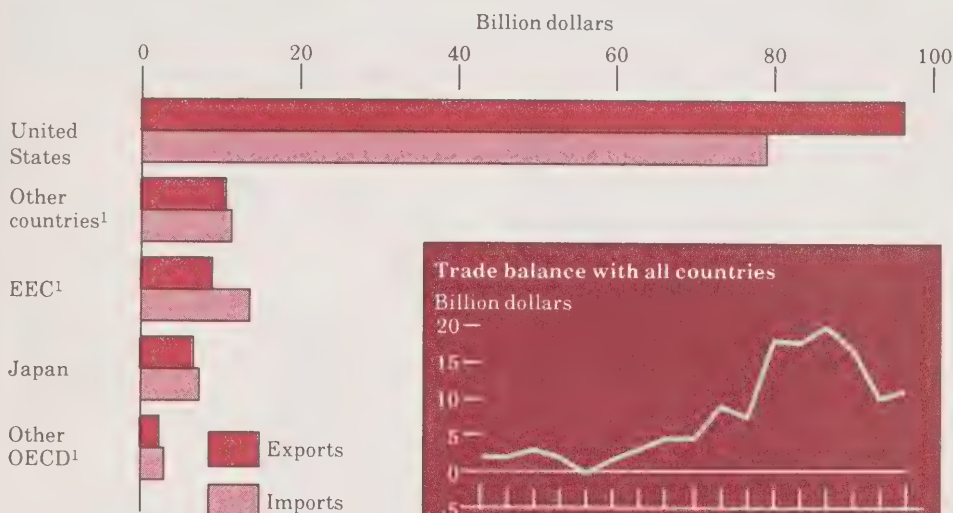
The value of imports increased 4.6% to \$115.1 billion in 1987 (Table 21.2), following increases of 7.2% in 1986 and 12.2% in 1985.

The value of exports was up 5.2% to \$126.1 billion, after increasing 0.7% in 1986 and 7.0% in 1985.

The merchandise trade surplus — the excess of exports over imports — was nearly \$11.0 billion

Chart 21.3

Canadian merchandise trade with other countries, 1987



¹ See footnotes, Table 21.5.

for 1987, compared with \$9.8 billion for the preceding year. The balance, in 1987, was much lower than that of 1983 (\$17.5 billion) and 1984 (\$19.8 billion) due to a strong surge in imports which was not matched by exports. Much of this increased expenditure occurred in automotive products with substantial increases which also occurred for imports of machinery and equipment.

Price changes have a significant impact on trade values. The Paasche or current-weighted price index is calculated from price relatives with 1981 as a base year (1981 = 100) and current values as weights.

The Paasche import price index at the total level decreased 3.3% in 1987 (Table 21.8), following a smaller decrease of 0.6% in 1986. The Paasche export price index at the total level was 100.1 for 1987, marginally higher than it was for the base year 1981, the result of decreases in the index of 1.4% in 1987 and 3.0% in the previous year. Much of the decrease for both imports and exports was attributable to lower prices for crude petroleum and associated products. Revisions were made to the price index of end products, inedible for both imports and exports, reflecting a change in the methodology used for computing the price

index of electronic computers and other data processing equipment.

The fixed-weight or Laspeyres volume index (1981 = 100), a measure of changes in trade values in real physical terms, is calculated by dividing a value index by the corresponding Paasche price index.

The import fixed-weight volume index was up 8.2% to 142.4 in 1987, preceded by increases of 7.9% in 1986 and 10.0% in 1985. Export volume rose 6.7% to 149.2, which followed a smaller increase of 3.8% in 1986 (Table 21.8).

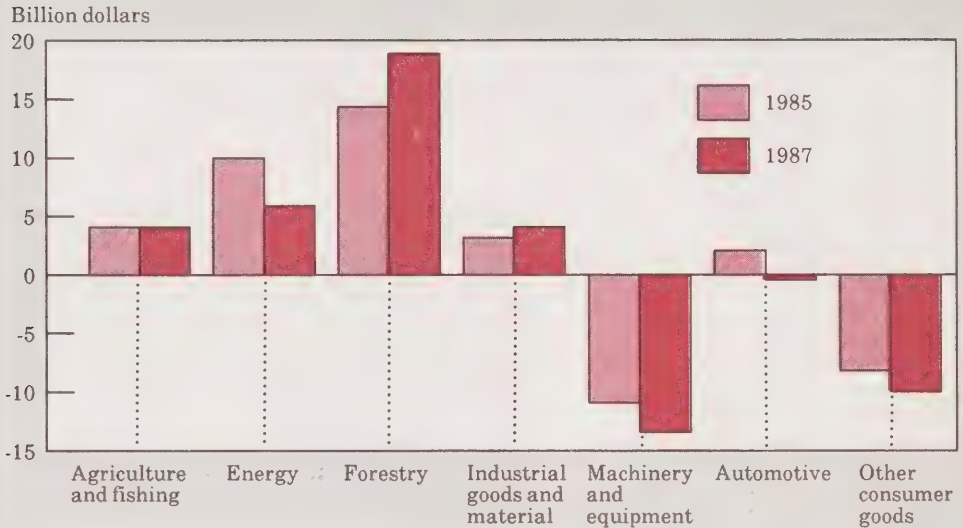
21.5.3 Trade by commodity group, 1983-87

Imports. Table 21.3 shows the value of import commodity groups from 1983 to 1987. The largest commodity group belonged to machinery and equipment which accounted for 28.9% of total imports in 1987. The share of automotive products was 28.4% of the total. Trailing these groups were industrial goods and materials (18.0%), other consumer goods (11.0%), agricultural and fishing products (6.4%) and energy products (5.1%). Imports of automotive products showed a 74.7% growth in the 1983-87 period, and imports of machinery and equipment, 59.8%. Imports of energy products posted the smallest increase with 14.6%.

Chart 21.4

Trade balance

(balance-of-payments basis)



Exports. Table 21.4 shows the values of export commodity groups for the same period. Automotive products was the leading group in 1987 and accounted for 25.5% of export value followed by industrial goods and materials (19.8%), forestry products (16.0%), machinery and equipment (15.6%), energy products (9.5%), and agricultural and fishing products (9.3%). While growth in export value from 1983 to 1987 was recorded for machinery and equipment (62.6%), forestry products (56.9%), automotive products (51.4%) and industrial goods and materials (40.5%), growth was slow (4.0%) for agricultural and fishing products and there was a decrease of 6.0% for energy products.

Principal trading areas. The principal trading areas shown in some tables include groupings which are defined as follows: EEC — Belgium, Denmark, France, the Federal Republic of Germany, Ireland, Italy, Luxembourg, the Netherlands, Greece, Portugal, Spain and the United Kingdom; other OECD — Austria, Finland, Iceland, Norway, Sweden, Switzerland, Turkey, Australia and New Zealand (the EEC countries, United States, Japan and Canada are also members of OECD); other America — defined as all countries and territories of North and South America (other than the United

States and Canada) including Greenland, Bermuda and Puerto Rico.

21.5.4 Imports and exports by country

Imports from the United States were up by 3.6% (or \$2.7 billion) in 1987 over 1986 (Table 21.5). While imports from Japan decreased 1.0%, imports from the EEC continued to surge, rising 9.6% or \$1.2 billion in 1987, as a result of higher imports of crude petroleum from the United Kingdom, a member of the EEC. Increases of imports were shown for other OECD countries (11.2%) and other countries (8.2%).

The United States' share of Canadian imports decreased from 72.1% in 1983 to 68.7% in 1987. Japan's share rose to 6.5% from 6.0% in 1983. The EEC performed well, and raised its share from 8.0% to 12.0% of Canadian imports. The shares of other OECD countries and other countries showed some declines.

Exports to the United States increased 3.5% (or \$3.3 billion) in 1987. Exports to other trading partners also posted growth: Japan (16.4%), EEC (16.3%), other OECD countries (17.3%) and other countries (3.2%).

In the period 1983-87, the United States' share of Canada's exports rose from 73.3% to 76.6%.

Export market shares to Japan and other OECD countries improved marginally, but market shares of Canadian exports to the EEC and other countries decreased.

21.5.5 Reconciled trade data with the United States

After adjusting for conceptual differences which normally add to the balance calculated from Canadian data, the reconciled trade surpluses with the United States measured Cdn. \$17.0 billion in 1987 and Cdn. \$18.4 billion in 1986. According to the reconciled data, Canadian exports to the United States rose 42.5% and Canadian imports from the United States were up 49.3% between 1983 and 1987.

21.6 Federal trade services

Canada's economy is vitally dependent on international trade. Competition among industrial nations is intense and increased exports are not easy to achieve. A successful export trade development program can only be assured by combining good products, efficient production and aggressive, intelligent marketing with government support.

External Affairs is responsible for the delivery of a number of export promotion programs.

The Program for Export Market Development (PEMD): The industry-initiated component of PEMD encourages the export of Canadian goods and services by offering assistance to Canadian businesses to participate in or undertake various types of export promotion activities, and sharing the financial risks of entering new foreign markets. The program's government-initiated component provides funds for organizing national exhibits at trade fairs outside of Canada, trade and economic missions to foreign countries and trade missions to Canada by foreign officials and businessmen.

The Technology Inflow Program (TIP): TIP promotes international collaboration on technological innovation. The program eases development of new or improved Canadian products, processes, or services by facilitating the flow of foreign technology with Canada, and by providing Canadian scientists and engineers with financial support to assist them in gaining first-hand knowledge of foreign technologies.

The Cost-Recoverable Technical Assistance (CRTA) program: CRTA facilitates export opportunities for Canadian technical goods and services (including capital projects) through government-to-government technical assistance projects, and through secondment of public sector expertise in support of private sector project initiatives.

21.6.1 Department of External Affairs

The economic policy bureau is responsible for developing advice on international economic issues which affect Canadian interests. It develops and co-ordinates Canadian positions for Economic Summits and Canadian participation in the OECD, on questions related to Canada's relations with developing countries and on the economic dimensions of East-West relations. It also provides departmental input into the government policy process relating to international financial, monetary and investment issues as well as energy and environmental questions.

The special trade relations bureau is responsible for policy development and implementation of import and export controls under the Export and Import Permits Act. The bureau implements government policies designed to protect Canadian manufacturers from injurious imports, to monitor steel imports and exports, and to control the import and export of military and strategic goods. The bureau also implements the government's nuclear safeguards and non-proliferation policy.

The trade policy bureau is responsible for formulating and implementing Canadian trade policy with particular reference to the activities of the General Agreement on Tariffs and Trade (GATT), the Organization for Economic Co-operation and Development (OECD), the United Nations Conference on Trade and Development (UNCTAD) and the trade aspects of domestic industrial, resource and agricultural policies. It is responsible for sectoral trade issues, such as services, resource and commodity trade policy questions, including the preparation and conduct of the negotiation of intergovernmental commodity arrangements and agreements, as well as other negotiations of bilateral trade disputes and related issues. The bureau also provides support and advice regarding the management of international trade relations issues.

The five international branches (Europe, Asia and Pacific, Africa and Middle East, Latin America and Caribbean, and the United States) each headed by an assistant deputy minister, are focal points on matters affecting Canada's trade and economic relations with other countries and areas. Branch responsibilities include development of Canada's international trade strategy, market development programs for individual countries and improvement of access for Canadian products to export markets. The branches are centralized sources of information on trade, tourism and investment with specific countries or regions and they provide a regional perspective for matters of

both international trade relations and export trade development. They also provide information, advice and guidance to government agencies and to the business community on foreign government trade and economic regulations and practices; maintain contact, normally through Canadian posts abroad, with foreign markets and foreign governments on matters pertaining to markets for Canadian exports; and provide advice to the department, to other Canadian government agencies and to the Canadian business community on export market problems and opportunities. Aside from trade and economic functions, branches are directly responsible for Canada's political/cultural relations with foreign countries, and indirectly in areas of immigration policy, foreign aid and government financing.

The trade commissioner service promotes Canada's export trade and represents and protects its commercial interests abroad. Accordingly, trade commissioners have a variety of responsibilities to the Canadian business community. They initiate programs to develop new markets for Canadian products and services, respond to inquiries from Canadian firms and provide advice to visiting Canadian business persons. Specifically, trade commissioners may be called upon to act as export marketing consultants; bring foreign buyers into contact with Canadian sellers; recommend suitable representatives and modes of product distribution; help organize trade fairs and missions; and report on changes in tariffs, exchange controls and other matters affecting Canada's trade in countries to which they are accredited. They are also engaged in identifying and attracting investment in Canada, promoting opportunities for technology transfer to Canada, and in monitoring tourism to Canada.

Trade commissioners remain aware of ongoing developments in the Canadian business community by returning periodically to Canada and meeting with interested companies and individuals as part of official tours of Canada. Trade associations are informed in advance of these visits so that business persons wishing appointments may arrange them through one of the international trade centres located across Canada in each of the 10 provinces.

The defence programs and advanced technology bureau provides support to Canadian companies seeking new ideas or processes; marketing advanced technology products and services internationally; and exporting into defence markets. In the latter, expertise and support are available to take advantage of the enormous potential offered by defence contracts, not only for finished products but also at the research

and development stages. Agreements with the US government and other NATO allies, as well as trade commissioners assigned to key military procurement centres, facilitate participation by Canadian suppliers in this sector. The bureau also represents the department's focal point for advanced technology. Marketing expertise and assistance is available to exporters wishing to take advantage of export opportunities in this rapidly evolving sector. In addition, the technology inflow program supports companies in identifying, evaluating and acquiring foreign technology. These services are complemented by on the spot assistance from a worldwide network of technology development officers and trade commissioners.

Tourism program abroad. External Affairs is responsible for the delivery of elements of the federal tourism program through personnel at posts abroad. In 1986, tourism expenditures in Canada totalled over \$20 billion. This expenditure represented slightly over 4.5% of Canada's Gross National Product, provided direct employment for over 600,000 Canadians, provided over \$9.0 billion in government revenue and induced over \$3.1 billion in investment. Of the total \$20 billion, \$6.3 billion or 31% represented earnings from foreign visitors. It is for this portion of the program that External Affairs, in co-operation with the Department of Industry, Science and Technology and Tourism Canada, is responsible.

21.6.2 Export Development Corporation (EDC)

EDC is a Crown corporation that facilitates and develops Canada's export trade through the provision of insurance, guarantees, loans and related services.

EDC services are provided to assist Canadian exporters who are offering goods and services to foreign buyers, and Canadian investors who are making offshore investments. Exporters and investors in other countries have access to similar support facilities from their governments.

EDC support is available for transactions of all sizes. The corporation continually reviews its programs and is prepared to consider tailoring its facilities — within its legislative limits — to meet the specific needs of exporters.

EDC groups its services into major classifications, as follows: insurance, guarantees, and financing.

Export credits insurance protects exporters for up to 90% of their losses if their foreign customers are unable or unwilling to pay their bills. The most widely used policy is global comprehensive, which provides protection against both

political and commercial risks. Political risks include war or revolution or foreign exchange blockages, and commercial risks include insolvency, default or repudiation. Global political insurance is also available, and is similar to global comprehensive but without the commercial coverage. Selective political insurance covers exports to specified countries for political risk. Global policies cover exports sold on short-term credit (usually not exceeding 180 days). Coverage is available from the date of contract or the date of shipment of goods, until payment is received. For exports sold on medium-term credit of one to five years, EDC provides specific transaction insurance which covers individual transactions.

In addition to the global policies and specific transaction insurance, EDC also offers a number of specialized policies, including policies that offer reduced administration for small businesses exporting to the US only (commercial risk coverage) or worldwide (commercial and political risk coverage); policies for large volume companies willing to take a greater share of the risk; policies that cover risks on sales of bulk agricultural products sold on 360-day credit; and policies that cover political risks for equipment used on foreign job sites. It also offers insurance that protects bid and performance instruments posted in export transactions, and foreign investment insurance that protects investors against expropriation, war or revolution, and inability to repatriate earnings. There are also policies that protect exporters supported by EDC loans during the pre-disbursement period, and sub-suppliers on EDC-supported transactions against non-payment resulting from developments involving the buyer or the exporter of record (the company that has the main contract). Members of an exporting consortium can get coverage against the call of a performance instrument due to the non-performance of another member or members of the consortium, and a domestic surety company can get coverage if it provides a performance bond to a foreign buyer on an exporter's behalf.

Guarantees are issued to banks making export loans, issuing bid and performance securities on behalf of an exporter, or purchasing notes given to an exporter by a foreign buyer in payment for capital goods or services. There is also a guarantee for banks that provides financing for exports of agricultural products sold on credit terms of up to three years when warranted by officially-supported international competition, and a short-term line of credit guarantee that provides coverage to banks and financial institutions extending lines

of credit to foreign banks, which in turn finance purchases of Canadian goods sold on short-term credit.

Export financing services are of essentially two types: loans made either directly to the buyer or through the purchase of promissory notes issued to the exporter by a foreign buyer; and guarantees of export loans provided by banks or other financial institutions. EDC financing is available for export transactions which would normally warrant medium- or long-term financing support.

EDC normally provides financing for up to 85% of the contract value. Funds are disbursed directly to the Canadian exporter on behalf of the foreign buyer, thus creating the equivalent of a cash sale for the exporter.

EDC's financing facilities include loans, lines of credit and note purchases. Specialized financing facilities are also available. Transactions eligible for specialized credit are those for which goods are purchased in Canada by a Canadian buyer who will lease such goods to another person for permanent use outside Canada or will use the goods himself on a permanent basis outside Canada.

EDC strives to be as flexible and responsive as possible to the financing needs of Canadian exporters. The amount and type of financing provided varies with a number of factors including competitive circumstances, the economic life of the goods and services to be exported, project cash flow, the characteristics of the borrower and the nature of the foreign market. EDC's financing services are available to any person or organization carrying on business in Canada provided EDC is satisfied with the technical and commercial competence of the exporter and the general creditworthiness of the borrower.

EDC charges exposure and other fees on new financing transactions and seeks to achieve a system for Canadian exporters which is fair, simple and competitive.

An optimum of Canadian content in the exports EDC supports is a major goal, as the exports supported by EDC create jobs in Canada. EDC offers advice to exporters on how to meet and exceed Canadian content levels established for its services. The Canadian content level is determined at the time of application for export insurance or financing. Generally, goods and services should have a 60% Canadian content or better.

Information concerning EDC's services is available through EDC regional and district offices across Canada, or through EDC's head office in Ottawa.

21.6.3 Tariff rates

The customs tariff sets out five different tariff treatments: the British preferential, most-favoured-nation, general and general preferential. Special tariff rates also exist for certain goods imported from Australia and New Zealand, and the Commonwealth Caribbean countries.

General tariff rates are applied to goods imported from countries with which Canada has no tariff arrangements, such as Albania, Balau Islands, North Korea, Libya, Oman and Saudi Arabia. The German Democratic Republic, once subject to general tariff rates, is now entitled to most-favoured-nation rates. General tariff rates may apply to goods imported when the country of origin cannot be determined.

Most-favoured-nation rates are tariff rates fixed by Parliament as being generally more favourable than the general tariff. These rates reflect Canada's international tariff arrangements such as GATT or specific bilateral trade agreements. These rates apply conditionally to those goods for which most-favoured-nation treatment is claimed.

The British preferential tariff rates are fixed by Parliament and offer more preferential (lower) rates of duty than the most-favoured-nation rates to certain commodities of British Commonwealth countries or any other British colony or protectorate or territory under British trusteeship as provided for in Section 26 of the customs tariff. South Africa is entitled to most-favoured-nation rates rather than British preferential rates. Furthermore, some of these countries, such as Australia, are offered through bilateral trade agreements a preferential tariff rate.

General preferential tariff rates are formula-based rates and reflect, since July 1974, Canada's international commitment to developing countries under a generalized system of preferences. The formula, as established by Parliament, generally provides for a margin of preference to be either equivalent to the British preferential tariff rate or one-third less the most-favoured-nation rate.

Commonwealth Caribbean tariff rates. Section 53 of the customs tariff provides special free rates of duty for many products originating from Commonwealth Caribbean countries.

In all five tariff-treatments, goods are subject to various rates of duty including a free rate of duty.

Value for duty. Canada's system of valuing imported goods is known as the transaction value system. It is based on an internationally approved set of rules, under the GATT (General Agreement

on Tariffs and Trade), and is referred to as the customs valuation code; many of Canada's trading partners value imported goods using the same basic rules. The code provides for a fair, uniform, and neutral system which values goods in accordance with commercial realities and in which arbitrary or fictitious customs values are prohibited.

The transaction value system stipulates that the transaction value method must be used whenever possible. This method bases the customs value on the price you pay for the goods. This price may have to be adjusted for certain deductions or additions. If the transaction value method cannot be used, one of the other five methods of valuation must be used, according to an established sequence. These other methods are known as transaction value of identical goods method; transaction value of similar goods method; deductive value method; computed value method; and residual method.

The Special Import Measures Act (SIMA) provides the basis in law for the department's anti-dumping and countervailing duty program. Dumping occurs when goods are sold for export to Canada at prices lower than those prevailing in the exporter's domestic market. Where dumped imports have caused injury to Canadian production, the amount or margin of dumping may be offset by the imposition of anti-dumping duty. Similarly, when imports are unfairly subsidized by foreign governments, the subsidy can be offset by the levy of countervailing duty. The imposition of anti-dumping or countervailing duty is a measure taken to protect Canadian industries from unfairly-priced imports which cause or may cause injury to Canadian production of competing goods. In order to determine whether anti-dumping or countervailing duty should be imposed, the department investigates the pricing practices of the exporter and the level of foreign subsidies provided.

Drawback. Drawback legislation is designed to provide relief from customs duty and sales tax included in the manufacturers' costs to enable them to compete more equitably both abroad and at home with foreign manufacturers. It does this by granting a drawback, in the case of Canadian exporters, of customs duty and sales taxes paid on imported parts or materials used in Canada in the manufacture of goods subsequently exported. In certain strategic industries in Canada (aircraft, automobiles and other secondary manufacturers) costs of plant equipment or key materials are reduced in the same manner when specified imported goods are used in eligible Canadian manufacturing. Other areas where drawbacks

are payable include: ships stores; joint Canada-US projects; and imported goods exported or destroyed in Canada.

Additional information on customs and excise programs is provided in the *Annual Review of Revenue Canada Customs and Excise*.

21.6.4 Trade agreements

Canada's tariff arrangements with other countries fall into three main categories: trade agreements with a number of Commonwealth countries; the General Agreement on Tariffs and Trade (GATT); and other arrangements.

Canada signed the protocol of provisional application of the General Agreement on Tariffs and Trade in October 1947 and brought the agreement into force in January 1948. The agreement provides for scheduled tariff concessions and the exchange of most-favoured-nation treatment among the contracting parties, and lays down rules and regulations to govern the conduct of international trade.

Trade relations between Canada and a number of other countries are governed by trade agreements of various kinds, Caribbean, for example, by exchange of most-favoured-nation treatment under orders-in-council, and by even less formal arrangements. Details are available from the appropriate international bureaus of External Affairs Canada.

21.7 Canadian development assistance programs

21.7.1 Canadian International Development Agency (CIDA)

CIDA is responsible for operating and administering most of Canada's international development assistance programs. Canada co-operates with developing countries through two main channels: the national initiatives program, which includes mainly country-to-country agreements, most scholarship programs, and the programs of Petro-Canada International Assistance Corporation; and the partnership program, which supports development efforts initiated and implemented by Canada's development partners, both Canadian (such as non-governmental organizations and institutions or Canadian private enterprise) and international (such as the international development banks, UN agencies and others). In the fiscal years 1981-82 to 1987-88 inclusive, Canada spent \$14.37 billion on international co-operation.

Canada's national initiatives program assists selected developing countries in Asia, Africa and

the Americas with many types of development projects, including various forms of technical assistance. In 1987-88, CIDA supported 8,171 Third World students and trainees — 4,030 studying in Canada, 2,030 in their own country, and 2,111 in a third country; of the total, 2,421 were women. In addition, 4,542 Canadian experts were on assignments overseas in 1987-88, fully or partly supported by CIDA — working directly for CIDA, or through private firms, institutions and non-governmental organizations; of this total, 1,289 were women.

Until April 1, 1986, Canadian country-to-country (bilateral) assistance was financed through a mixture of non-repayable grants and development loans, which were low-interest or interest-free. Since that time, Canada's official development assistance program has been financed completely by grants. Earlier, Canada took other steps to help the developing countries cope with their growing debt problem. In 1977, Canada forgave past loans to countries designated least-developed by the United Nations, and provided all subsequent aid to them in grants. And at the UN special session on Africa in May 1986, Canada declared a moratorium on the aid-related debts of sub-Saharan countries. Most recently, Canada announced, at the Commonwealth heads of government meeting held in September 1987, debt forgiveness of \$347 million owed by Kenya, Zambia, Zimbabwe, Nigeria, Ghana and Swaziland. At the Summit of the countries of the Francophonie, a similar announcement forgave debts totalling \$324.9 million owed by Senegal, Zaire, Madagascar, Cameroon, Congo, Ivory Coast and Gabon.

The country-to-country program in Asia is Canada's oldest: since 1951, it has provided about \$5.8 billion in aid, mostly to Bangladesh, India, Pakistan, Indonesia and Sri Lanka. Major co-operation programs have been extended to both China and the Philippines since 1980. Food aid and infrastructure (dams, power transmission and transportation) were predominant in earlier years, gradually evolving toward greater attention to rural development. At present, in response to the rapidly industrializing economies in this region, a greater emphasis is being placed on the transfer of technology and knowledge and the development of human resources. More linkages between Canadian and Asian institutions and private enterprises are being encouraged.

Africa became the focus of world attention during the crisis of 1984-85. Canada took several steps to help fight drought and famine there, providing emergency aid and creating the Africa 2000

program. The overall goal is to help sub-Saharan Africa recover and restore the balance between people and their environment. Less emphasis is now being put on creating costly infrastructure, and more on maintaining and restoring existing facilities. Canada's bilateral aid to Africa up to 1987-88 totalled about \$4.9 billion. Major recipients, in 1987-88, included Burkina Faso, Cameroon, Ivory Coast, Ethiopia, Ghana, Kenya, Mali, Niger, Rwanda, Senegal, Sudan, Tanzania, Zaire, Zambia, Zimbabwe, and the Southern African Co-ordination Conference (composed of Angola, Botswana, Lesotho, Malawi, Mozambique, Swaziland, Tanzania, Zambia and Zimbabwe).

In francophone Africa, CIDA's efforts have included projects in such fields as irrigation, well-drilling, erosion control, reforestation, rural electrification and rail transportation, as well as health, education and community development. In anglophone Africa, Canadian aid tries to meet the needs of the rural poor and to help overcome Africa's severe lack of infrastructure. Food production and rural development projects have been emphasized.

Canada's assistance to countries in the Americas totalled \$1.35 billion in 1987-88. In the Caribbean, where Canadian aid dates back to 1958, tourism is important; projects have included improvements to airports, communications links and water systems. The main priority is job creation, particularly in agriculture and manufacturing. In Latin America, where bilateral assistance from Canada began in 1970, rural development is emphasized. Countries in the Americas, receiving significant amounts of country-to-country aid from CIDA, have included Honduras, Jamaica, Guyana, Colombia, Peru and the Leeward and Windward Islands.

Through the partnership program, Canada supports both national and international partners. Through its international partners, Canada joins with other countries to support development initiatives beyond the scope of any single donor. Canada contributes to over 60 programs or agencies and participates in their policy-making.

During the 1960s, Canada pioneered in providing government funding to help non-governmental organizations expand their efforts. In 1987-88, about \$250 million was provided to support more than 4,500 projects being carried out by several hundred non-governmental organizations and social institutions. These funds supported development projects in all regions of the world, aimed at helping the poorest people use local resources to become more self-reliant

in such fields as food, health and education. Opportunities were also provided for managers from the Third World to learn about new approaches to problems, and Canadian groups received assistance for their development education efforts across the country.

Other CIDA disbursements during 1987-88 included \$47.5 million for humanitarian aid (mainly for refugees in Africa and Asia), and \$12 million for Canadian and Commonwealth scholarships. In 1984, CIDA created a business co-operation branch to strengthen links between the aid program and Canada's private sector. Its industrial co-operation program disbursed \$38.5 million in 1987-88 to help Canadian and Third World firms work together.

Until the announcement of Canada's new aid strategy, tabled in the House of Commons on March 3, 1988, about half of Canada's overall aid program was tied to the procurement of Canadian goods and services. Goods such as equipment had to meet a two-thirds Canadian content to be considered Canadian-sourced. Approximately 80% of the country-to-country program was tied. Since then, excluding food aid, Canada has substantially eased tying policy. Sub-Saharan Africa, for example, can be up to 50% untied, depending on each country's needs, and the rest of Canada's program will be untied up to 33.3%. This will allow developing countries, wherever possible, to use their own resources to support development projects.

Canada has long been one of the world's major suppliers of food aid, mostly through shipments of wheat, flour and canola oil, through multilateral agencies (mainly the World Food Program), through country-to-country agreements with such recipients as Bangladesh, Jamaica and Ethiopia, and through Canadian non-governmental organizations. In 1987-88, Canada contributed \$436.6 million, making Canadians, on a per capita basis, the world's leading donors of food aid.

Canada's new aid strategy is based on six development priorities: poverty alleviation, structural adjustment, increased participation of women, environmentally sound development, food security and energy availability. CIDA has been moving toward fulfilling these goals, particularly in the last several years. Debt forgiveness and the institution of an all-grant program have assisted in structural adjustment programs. The targetting of 45% of all country-to-country aid for Africa will also ease the debt problem. Women are increasingly participating in development as both agents and beneficiaries of the development process. CIDA has adopted guidelines for

environmental impact for all new projects. In addition, a major decentralization program which began in 1987-88, will facilitate decision-making in the field and enhance CIDA's responsiveness in planning and implementing aid projects.

Canadian aid totalled \$2.61 billion in 1987-88, or 0.5% of GNP. It is the government's objective to raise the (Official Development Assistance) ODA/GNP ratio by gradual increments, beginning in 1991-92, to 0.6% by 1995 and to 0.7% by 2000.

21.7.2 International Development Research Centre (IDRC)

IDRC was established in 1970 to initiate and encourage research focused on the problems of the world's developing regions; it fosters co-operation between developing nations as well as between the developed and the developing world. In its role as co-ordinator of international development research, it helps developing regions to build up research capabilities, skills and institutions to solve their own problems.

Projects are channelled through seven program divisions: agriculture, food and nutrition sciences; health sciences; information sciences; social sciences; earth and engineering sciences; fellowships and awards; and communications. As of September 1988, IDRC had supported 3,583 projects in more than 100 countries.

A fellowship program with categories of awards for both Canadians and citizens of developing countries is designed to provide individuals with the opportunity to undertake training or research in various aspects of development.

IDRC is financed by the Parliament of Canada by means of an annual grant, based on a percentage of Official Development Assistance (ODA). Its status as a public corporation allows it to offer completely untied aid. IDRC is not an agent of the Canadian government and its officers and employees are not part of the public service of Canada. It is governed by an international autonomous board of governors; at least 11 of the governors, including the chairman and vice-chairman, must be Canadian citizens. To date the 10 other members have been appointed from other countries, with six among them from developing countries. The centre submits an annual report to the Canadian Parliament through the secretary of state for external affairs.

The centre maintains a close and co-operative relationship with CIDA whose president is usually a member of IDRC's board of governors.

21.7.3 CUSO

Founded in 1961, CUSO is an independent Canadian voluntary organization which works with

communities and groups committed to development and social change both in Canada and the Third World. It recruits Canadians skilled in trades, business, agriculture and renewable resource occupations, health, education, technology and community development for two-year postings in the Third World; these workers share their skills and gain personally through a broadened outlook. Committed to the economic and social advancement of the poorest segments of Third World societies, CUSO also provides funding and other support on a partnership basis to self-help and community development projects. Within Canada, CUSO is involved in public education concerning the causes of Third World underdevelopment.

CUSO receives core funding from CIDA; other contributions come from provincial governments, individuals, church groups, professional and service organizations, unions, businesses and corporations.

21.7.4 CESO

The Canadian Executive Service Organization (CESO) was created in 1967. The independent, non-government organization sends Canadians (retired, semi-retired or professionally-active) with expertise in business and technology to be short-term volunteer consultants to people in business and organizations in the developing world. In 1969, the program was expanded to send CESO volunteers to various parts of Canada to assist Canadian native people.

CIDA and Indian and Northern Affairs Canada provides CESO with core funding. Other contributions have been made by more than 300 Canadian corporations, overseas clients, provincial/territorial governments, individuals, and professional and service organizations.

21.8 Defence

21.8.1 Department of National Defence

The Department of National Defence was created by the National Defence Act, 1922. The Defence Minister controls and manages the Canadian forces and all matters relating to national defence establishments. The Minister is responsible for presenting to Cabinet matters of major defence policy for which Cabinet direction is required. The Minister continues to be responsible for certain civil emergency powers, duties and functions.

The chief of the defence staff is the senior military adviser to the Minister and is charged with the control and administration of the Canadian forces. The chief of the defence staff is

responsible for the effective conduct of military operations and the readiness of the forces to meet the commitments assigned to the department.

21.8.2 NATO and North America

Canada was one of the 12 original signatories of the North Atlantic Treaty Organization (NATO) in 1949. Successive Canadian governments have reaffirmed the view that Canada's security remains linked to that of Europe and the United States. Canada is committed to the principle of collective defence and remains convinced of the importance of NATO's role in reducing, and eventually removing, the underlying causes of potential East-West conflict through negotiation, reconciliation and settlement. In addition to its role as an alliance for defence through deterrence, NATO is a major forum for political consultation among its members.

Canada's membership in NATO continues to be a factor in the development of its political, economic and scientific-technological relations with Europe, by which Canada seeks to balance its relations with the United States. The alliance obliges both Canada and the United States to maintain a deep interest in European affairs and exemplifies the interdependence of Europe and North America.

NATO security also extends to North America where, through a series of bilateral arrangements between Canada and the US, Canada contributes to the protection of the North American area of NATO through the auspices of the Canada-United States Regional Planning Group, one of the original four planning groups established by the Defence Committee in 1949.

North American defence. The foundations for the mutual defence of North America are rooted in the Ogdensburg Declaration of 1940 and the formation of the Permanent Joint Board of Defence in that same year which established the framework for Canada/United States defence co-operation. Through a series of bilateral agreements signed over the past 46 years, Canada participates with the United States in the protection of the North American landmass, offshore waters and aerospace approaches. The best known of these agreements is the North American Air Defence (NORAD) agreement in effect since 1959. Under this agreement, the Commander-in-Chief NORAD is responsible to the United States' joint chiefs of staff and the Canadian chief of the defence staff. Through the agreement, Canada participates in aerospace surveillance and warning, active air defence, command and control, and measures designed to protect the deterrent capacity of the United States.

21.8.3 The Canadian forces

The Canadian forces are organized to reflect the major commitments assigned by the government. All forces devoted to a primary mission are grouped under a single commander. Specifically, the Canadian forces are formed into National Defence Headquarters and five major commands reporting to the chief of the defence staff.

Maritime command. All Canadian maritime forces are under the commander, maritime command (headquarters, Halifax, NS). The commander, maritime forces Pacific (headquarters, Esquimalt, BC) exercises operational control over assigned maritime forces in the Pacific. The role of maritime command is the surveillance and control of the sea approaches of the three oceans bordering Canada, and the provision of combat-ready ships in support of Canada's commitment to NATO and continental defence. The commander, maritime command is also the commander of the Canadian Atlantic sub-area of the western Atlantic command, under the supreme commander, allied command Atlantic. Additional roles are to support Canadian military operations as required; to conduct search and rescue operations in the Halifax and Victoria search and rescue regions (the Atlantic provinces, British Columbia and the surrounding ocean areas); and to carry out regional commitments in these areas.

Increased surface and air resources have been devoted to the surveillance and control of waters of Canadian economic interest, particularly in support of Fisheries and Oceans Canada. A multitude of ships are identified each year and many are boarded by officers of Fisheries and Oceans Canada, assisted by Canadian military personnel.

The naval reserve is organized in 24 divisions across Canada and provides support for maritime command at sea and ashore.

Mobile command. The role of mobile command is to provide land forces trained and equipped for the protection of Canadian territory, to maintain operational readiness of combat formations in Canada required for overseas commitments, and to support United Nations or other peacekeeping operations.

The forces assigned include a brigade group in the West (headquarters, Calgary, Alta.) a brigade group in the East (headquarters, Valcartier, Que.) and the special service force consisting of air-portable elements (headquarters, Petawawa, Ont.). The command also provides troops to the United Nations force in Cyprus.

The militia is one of the oldest institutions in Canada, dating back to the late 17th century. Command of the militia is exercised by the commander, mobile command. Its role is to augment the regular forces in peace and war. The militia is organized under five area headquarters and 22 militia districts. There are a total of 117 major units and 14 minor units.

Air command. The role of air command is to provide operationally ready regular and reserve air forces to meet Canada's national, continental and international commitments, and to carry out regional commitments within the Prairie region — Saskatchewan, Alberta and Manitoba as well as the northwest part of Ontario. Air command (headquarters, Winnipeg, Man.) consists of the following functional groups: fighter group, air transport group, maritime air group, 10 tactical air group, 14 training group, and air reserve group.

Fighter group (headquarters, North Bay, Ont.) provides the air defence forces required to enforce Canadian sovereignty in national airspace and to meet Canada's commitment to continental defence under the NORAD agreement; to provide squadrons to meet the NATO North Flank commitment; to provide tactical fighter support to maritime command and mobile command; and to provide all operational fighter training.

Air transport group (headquarters, Trenton, Ont.) provides the Canadian forces with air transport which includes strategic airlift operations on a worldwide basis, tactical airlift in any area in the world and the operation of an air transport service. In addition, air transport group commands all primary air search and rescue forces for all regions of Canada.

Maritime air group (MAG), (headquarters, Halifax, NS) is a component of air command. The group is responsible for management of all air resources engaged in northern patrol, maritime patrol, maritime surveillance, anti-submarine warfare and fisheries patrols.

The commander of maritime air group, responsible to the commander of air command, is under the operational control of the commander of maritime command while carrying out surveillance patrol and anti-submarine roles. A close working relationship between maritime command and maritime air group enables them to use a common operations centre.

The group conducts surveillance flights over Canada's coastal waters and the Arctic Archipelago. It also provides anti-submarine air forces as part of Canada's contribution to NATO.

10 Tactical air group with headquarters co-located with mobile command at St-Hubert, Que., operates all air resources engaged in the close support of the army. This involves helicopter fire support, reconnaissance and tactical transport over the battle area.

14 Training group (14 TGP) in Winnipeg, is responsible for aircrew selection, aircrew training to wings standard, junior leadership, survival and meteorological training. 14 TGP develops training policy for air command and is responsible for monitoring and evaluating all air command training.

Air reserve group comprises two wings, each with two tactical helicopter squadrons, in Montreal and Toronto and three other squadrons twinned with regular force units in Winnipeg, Edmonton and Summerside, PEI. Air reserve augmentation flights at 20 different bases in Canada and Europe will provide a cadre of trained personnel available for war establishment augmentation and for base expansion.

Search and rescue (SAR). Search and rescue activities are co-ordinated from Victoria, Edmonton, Trenton and Halifax. Rescue co-ordination centres (RCCs) are manned by Canadian forces personnel with Canadian Coast Guard officers attached on liaison duties in all centres except Edmonton. Besides the aircraft that are specially equipped and manned for SAR duties, other aircraft across Canada are assigned periodically to augment these primary SAR resources.

The Canadian forces training system. The functions of the Canadian forces training system include the planning and conduct of all recruit, trades, specialist and officer classification training common to more than one command. This group also assumes the regional commitments for the central region (Ontario).

Communication command. This command maintains strategic communications for the forces and, in emergencies, for the federal and provincial governments. The command also provides points for interconnecting strategic and tactical networks. It also operates the major defence department automatic data processing centres.

A communication reserve assigned to Canadian forces communication command is composed of six communication regiments, 12 communication squadrons and three independent communication troops. They are located across Canada and often co-located with regular force communication units. The role of the communication reserve is to augment and support

communication command and mobile command forces in peace and war.

Canadian forces northern region. The commander northern region is responsible for military matters and for co-ordinating and supporting the activities of forces when they are employed in the North. With headquarters at Yellowknife, NWT, and a headquarters detachment at Whitehorse, YT, the northern region encompasses the Yukon and Northwest Territories, including the islands in Hudson Bay, James Bay and the Arctic Archipelago, and extends to the geographic North Pole. Its total area exceeds 3.9 million square kilometres, 40% of Canada's mass.

Canadian forces Europe. With a role to provide combat-ready land and air forces for the defence of Central Europe, Canadian forces allocated to support NATO are located at Lahr and Baden Soellingen in the Black Forest region of the Federal Republic of Germany.

21.8.4 Peacekeeping operations

Since World War II Canada has played a vital role in co-operation with the United Nations and other international bodies in peacekeeping and the promotion of international security. Since 1947, approximately 79,000 Canadian servicemen and servicewomen have participated in 17 peace-restoring, peacekeeping and truce supervisory operations mounted by the United Nations and four truce supervisory or observer missions conducted outside the aegis of that world body. Excluding the Korean War period, the largest annual commitment of Canadian forces personnel to peacekeeping operations occurred in 1964-65 when approximately 2,600 servicemen were actively involved in seven missions.

The United Nations Force in Cyprus (UNFICYP) was established in 1964 with Canada providing one of the first contingents. In 1988, the Canadian contingent consisted of 575 regular and reserve force personnel.

In the Middle East, Canada has been involved in the United Nations Disengagement Observer Force (UNDOF) on the Golan Heights primarily in communications, logistics and technical support; and the United Nations Truce Supervisory Organization (UNTSO) in Egypt, Syria, Israel, Lebanon and Jordan as military observers or on staff.

In Korea, Canada has an officer on a seven-nation advisory group as part of a United Nations military armistice commission.

Canadian participation in the United Nations military observer group in India-Pakistan is now limited to military airlift support in the twice-

yearly move of headquarters between Srinagar and Rawalpindi.

In 1986, Canada joined the multinational force and observers in the Sinai. Canadian participation is 139 personnel in a rotary wing aviation unit and on the staff.

Canada is represented by five Canadian forces officers who are part of the observer force with the United Nations Goodwill Offices in Afghanistan and Pakistan (UNGMO).

In 1988, a 494-member Canadian forces contingent joined the United Nations Iran-Iraq Mission of Goodwill (UNIIMOG).

21.8.5 Military training assistance

From April 1982 to March 1984, the Canadian forces provided a three-person medical detachment to the Commonwealth military training team in Uganda. Under the military training assistance program, countries receiving training assistance, or negotiating with Canada for assistance, include Antigua, Barbados, Belize, Botswana, Cameroon, Ghana, Jamaica, Kenya, Malaysia, Nigeria, Oman, Sierra Leone, Singapore, Sudan, Tanzania, Thailand, Trinidad and Tobago, Uganda, Zambia and Zimbabwe.

Canada provides training facilities for some NATO countries on a cost-recovery basis. British military forces were trained in Canada under the terms of a 10-year agreement signed in 1971. A similar agreement was signed with the Federal Republic of Germany in 1973.

21.9 Emergency planning

Emergency Preparedness Canada (EPC) evolved from the former Emergency Planning Canada. The name change on July 1, 1986 more fittingly reflects its mandate: to co-ordinate the federal response to emergencies and encourage emergency preparedness to protect the health, life and property of Canadians. EPC reports to the Minister responsible for Emergency Preparedness and operates under the Emergency Preparedness Act.

Canadian emergency response system. When disaster strikes, the individual is the first line of defence. If the disaster is so severe that individuals cannot be expected to cope on their own, they request aid from their municipal services. If the emergency gets beyond the capacity of local resources, the provincial government may be asked for assistance. Although ready to assist at any time, the government of Canada normally becomes involved only when a provincial government asks for assistance. The exception is when

the emergency or some aspect of it falls within the jurisdiction of the federal government.

Usually, EPC knows about a disaster before federal help is requested; its situation centre in Ottawa monitors emergencies across Canada. This ensures that the government is prepared to assist when needed. Depending on the emergency, the most appropriate department takes the lead on behalf of the Government of Canada, with other departments providing support. Every federal department, agency and Crown corporation must plan and prepare to take on emergency responsibilities that relate to their normal functions and resources. For example, Transport Canada plans for assisting in possible disasters involving trains, ships and aircraft; Health and Welfare Canada plans for emergencies involving disease or injury; the Canadian Armed Forces plan and prepare to make their varied capabilities available when needed. EPC planners work with departmental officials to ensure these plans are as effective and as up-to-date as possible.

Federal/provincial co-operation. The governments of the provinces, of the territories and of Canada work together in many areas of emergency preparedness. An EPC regional director in each provincial capital is in constant touch with provincial and territorial emergency officials to ensure a countrywide network of preparedness.

Post-disaster financial aid. In the wake of a major disaster, a community or province may face heavy rebuilding costs. To help provincial governments with the financial burden of their relief measures, EPC administers, on behalf of the government of Canada, the disaster financial assistance arrangements. Since 1970, the government has paid out more than \$125 million in disaster relief to the provinces and territories. Generally, payments are made to help restore personal property, farmsteads, small businesses and public works to their pre-disaster condition.

Joint Emergency Preparedness Program. To foster planning and promote national preparedness,

EPC administers the Joint Emergency Preparedness Program (JEPP) on behalf of the federal government. Roughly \$6 million is spent annually to help provinces and territories with emergency preparedness projects.

Training and education. EPC gives or sponsors more than 100 courses, conferences and seminars a year at the Canadian emergency preparedness college in Arnprior, Ont. Each year, about 3,000 representatives from all levels of government and the private sector are trained in the techniques of emergency planning and management. Most courses run for one week, with topics ranging from emergency health and welfare services to transportation of dangerous goods.

Research. EPC sponsors research related to emergency preparedness. Projects range from an investigation of computers and their potential application to emergency planning, to an assessment of the economic impact should there be an interruption in Canada's supply of strategic minerals.

Key programs. EPC participates in various ways in a number of programs aimed at improving national preparedness for emergencies. Some examples are as follows: continuity of government — the maintenance of a string of emergency operations centres across the country, all of them protected against radioactive fallout and interlinked by communications systems; vital points — a program to identify vital facilities, plants and services that would have to be protected if national security were threatened; essential records — a program to identify and preserve those records that would be essential for government operations during and after a nuclear attack; NATO — planning activities and exercises related to the civil side of alliance preparedness; and Canada/US co-operation — maintaining close working relationships with Canada's counterpart organization in the United States, the Federal Emergency Management Agency.

Sources

- 21.1 – 21.3.7, 21.4 – 21.4.7, 21.6.1 Domestic Communications Division, Department of External Affairs.
21.3.8 Communications Directorate, Department of the Environment.
21.5 – 21.5.5 International Trade Division, Statistics Canada.
21.6.2 Corporate Communications Division, Export Development Corporation.
21.6.3, 21.6.4 Communications Branch, Department of National Revenue, Customs and Excise.
21.7.1 Public Affairs Branch, Canadian International Development Agency.
21.7.2 Communications Division, International Development Research Centre.
21.7.3 Public Affairs Division, CUSO.
21.7.4 Canadian Executive Service Overseas.
21.8 – 21.8.5 Director General Information, Department of National Defence.
21.9 Public Information Planning and Services Division, Emergency Preparedness Canada.

FOR FURTHER READING _____

Selected publications from Statistics Canada

- Exports, Merchandise Trade, annual. 65-202
- Imports, Merchandise Trade, annual. 65-203
- Canadian International Trading Patterns, 75 p., 1985. 65-503
- Quarterly Estimates of the Canadian Balance of International Payments, quarterly. 67-001
- Canada's International Investment Position, annual. 67-202
- Canadian Imports by Domestic and Foreign Controlled Enterprises, biennial. 67-509
- Canada's International Trade in Services, 1969 to 1984, 52 p., 1986. 67-510

More information about these publications is available from Statistics Canada. See Appendix F for a complete list of Statistics Canada offices.

TABLES

.. not available
... not appropriate or not applicable
— nil or zero
-- too small to be expressed

e estimate
p preliminary
r revised
certain tables may not add due to rounding

21.1 Personnel at Canadian diplomatic posts abroad¹

Geographic region and program ²	Program personnel		Support personnel		Total, all personnel
	Canada- based	Locally engaged	Canada- based	Locally engaged	
Geographic region					
International organizations	56	2	49	55	162
United States	149	146	67	338	700
Africa and Middle East	174	48	118	700	1,040
Latin America and Caribbean	155	65	74	436	730
Asia and Pacific	250	126	119	889	1,384
Europe	282	144	236	922	1,584
Total	1,066	531	663	3,340	5,600
Program					
Policy planning and co-ordination	58.5	0.5	28.6	10.3	97.9
Trade and industrial development	210.5	230.8	28.4	272.2	741.9
Tourism	20.5	42.4	0.1	39.3	102.3
Political relations	128.5	12.7	75.0	25.6	241.8
Economic relations	110.7	15.5	47.0	29.5	202.7
International development assistance	111.6	30.1	17.3	73.4	232.4
Culture, public affairs and information	52.5	62.8	11.0	144.8	271.1
Immigration and social affairs	207.5	99.6	11.6	487.6	806.3
Consular affairs	39.1	10.9	14.9	116.2	181.1
Administration	121.3	20.3	405.6	2,047.0	2,594.2
Other government departments	5.3	5.4	23.5	94.1	128.3
Total	1,066.0	531.0	663.0	3,340.0	5,600.0

¹ As at April 1, 1988.

² Deployment of personnel abroad.

21.2 Total imports, exports and trade balance on a balance-of-payments basis, 1972-87

Year	Imports		Exports ¹		Trade balance \$'000,000	Ratio of exports to imports %
	Value \$'000,000	Percentage change from previous year	Value \$'000,000	Percentage change from previous year		
1972	18,272	19.3	20,222	13.7	1,950	110.7
1973	22,726	24.4	25,649	26.8	2,923	112.9
1974	30,903	36.0	32,738	27.6	1,835	105.9
1975	33,962	9.9	33,616	2.7	-346	99.0
1976	36,608	7.8	38,166	13.5	1,558	104.3
1977	41,523	13.4	44,495	16.6	2,972	107.2
1978	49,048	18.1	53,361	19.9	4,313	108.8
1979	61,157	24.7	65,582	22.9	4,425	107.2
1980	67,903	11.0	76,681	16.9	8,778	112.9
1981	77,140	13.6	84,432	10.1	7,292	109.5
1982	66,739	-13.5	84,393 [†]	--	17,654 [†]	126.5 [†]
1983 [†]	73,098	9.5	90,556	7.3	17,458	123.9
1984 [†]	91,492	25.2	111,330	22.9	19,838	121.7
1985 [†]	102,670	12.2	119,070	7.0	16,400	116.0
1986 [†]	110,079	7.2	119,889	0.7	9,810	108.9
1987	115,149	4.6	126,125	5.2	10,976	109.5

¹ Includes domestic exports and re-exports.

21.3 Imports into Canada from all countries on a balance-of-payments basis, 1983-87 and percentage of 1987 total (million dollars)

Major commodity grouping	1983	1984	1985 ^f	1986 ^f	1987	Percentage of 1987 Total
Agricultural and fishing products						
Fruits and vegetables	1,880	2,169	2,208	2,373	2,501	2.2
Other agricultural and fishing products	3,666	4,365	4,241	4,856	4,890	4.2
Sub-total, agricultural and fishing products	5,546	6,534	6,449	7,229	7,391	6.4
Energy products						
Crude petroleum	3,267	3,383	3,749	2,716	3,447	3.0
Other energy products	1,894	2,750	2,598	2,369	2,467	2.1
Sub-total, energy products	5,161	6,133	6,347	5,085	5,914	5.1
Forestry products	732	822	856	1,044	1,165	1.0
Industrial goods and materials						
Metals and metal ores	4,407	4,904	6,076	5,929	6,138	5.3
Chemicals and plastics	4,393	5,212	5,443	5,841	6,228	5.4
Other industrial goods and materials	5,502	6,667	7,216	7,710	8,417	7.3
Sub-total, industrial goods and materials	14,301	16,784	18,735	19,480	20,783	18.0
Machinery and equipment						
Industrial and agricultural machinery	6,806	8,374	9,666	10,912	11,286	9.8
Aircraft and other transportation equipment	3,295	3,680	3,848	4,401	4,383	3.8
Office machines and equipment	3,113	4,409	4,194	4,447	5,356	4.7
Other machinery and equipment	7,612	9,934	10,385	11,418	12,263	10.6
Sub-total, machinery and equipment	20,825	26,397	28,093	31,178	33,288	28.9
Automotive products						
Passenger autos and chassis	6,208	7,890	10,774	12,062	12,346	10.7
Trucks and other motor vehicles	1,698	2,667	3,109	3,547	3,911	3.4
Motor vehicle parts	10,838	15,163	17,208	17,495	16,489	14.3
Sub-total, automotive products	18,744	25,719	31,092	33,104	32,746	28.4
Other consumer goods						
Apparel and footwear	1,710	2,209	2,304	2,859	3,126	2.7
Miscellaneous consumer goods	6,639	7,974	8,106	9,116	9,544	8.3
Sub-total, other consumer goods	8,349 ^f	10,183	10,410	11,976	12,670	11.0
Special transactions, trade	981	1,534	1,629	1,743	1,992	1.7
Unallocated BOP adjustments	-1,539 ^f	-2,613	-941	-760	-800	-0.7
Total, imports	73,098 ^f	91,493	102,670	110,079	115,149	100.0

21.4 Total exports from Canada to all countries on a balance-of-payments basis, 1983-87 and percentage of 1987 total (million dollars)

Major commodity grouping	1983 ^f	1984 ^f	1985 ^f	1986 ^f	1987	Percentage of 1987 total
Agricultural and fishing products						
Wheat	4,667	4,624	3,811	2,860	3,253	2.6
Other agricultural and fishing products	6,620	7,265	6,926	8,080	8,483	6.7
Sub-total, agricultural and fishing products	11,287	11,889	10,738	10,940	11,735	9.3
Energy products						
Crude petroleum	3,499	4,404	5,972	3,775	4,855	3.8
Natural gas	3,917	3,918	4,011	2,524	2,527	2.0
Other energy products	5,377	6,010	6,309	4,593	4,644	3.7
Sub-total, energy products	12,793	14,332	16,292	10,891	12,026	9.5

21.4 Total exports from Canada to all countries on a balance-of-payments basis, 1983-87 and percentage of 1987 total (million dollars) (concluded)

Major commodity grouping	1983 ^f	1984 ^f	1985 ^f	1986 ^f	1987	Percentage of 1987 total
Forestry products						
Lumber	5,052	5,603	5,914	6,384	7,500	5.9
Wood pulp and other wood products	2,991	3,787	3,301	3,958	5,351	4.2
Newsprint and other paper and paperboard	4,809	5,536	6,116	6,603	7,314	5.8
Sub-total, forestry products	12,852	14,927	15,331	16,945	20,164	16.0
Industrial goods and materials						
Metal ores	3,379	4,260	4,174	4,123	4,660	3.7
Chemicals, plastics and fertilizers	4,152	4,748	4,856	4,823	5,478	4.3
Metals and alloys	6,830	7,728	7,989	8,902	9,697	7.7
Other industrial goods and materials	3,395	4,276	4,952	5,029	5,117	4.1
Sub-total, industrial goods and materials	17,755	21,012	21,972	22,878	24,952	19.8
Machinery and equipment						
Industrial and agricultural machinery	3,402	4,013	4,131	4,463	4,520	3.6
Aircraft and other transportation equipment	2,686	3,188	3,593	4,746	4,469	3.5
Other machinery and equipment	6,007	8,204	9,322	9,703	10,681	8.5
Sub-total, machinery and equipment	12,095	15,405	17,046	18,911	19,670	15.6
Automotive products						
Passenger autos and chassis	9,337	13,539	15,743	17,420	13,906	11.0
Trucks and other motor vehicles	4,447	5,791	6,260	5,561	6,490	5.1
Motor vehicle parts	7,493	10,105	11,210	11,427	11,827	9.4
Sub-total, automotive products	21,277	29,435	33,213	34,408	32,223	25.5
Other consumer goods	1,533	1,882	2,000	2,390	2,643	2.1
Special transactions, trade	233	432	398	343	370	0.3
Unallocated BOP adjustments	730	2,018	2,081	2,183	2,342	1.9
Total, exports	90,556	111,330	119,070	119,889	126,125	100.0

21.5 Trade of Canada with principal trading areas on a balance-of-payments basis, 1983-87

Item and year	United States		Japan		EEC ¹		Other OECD ²		Other countries ³	
	Value \$'000,000	%	Value \$'000,000	%	Value \$'000,000	%	Value \$'000,000	%	Value \$'000,000	%
Imports										
1983	52,721	72.1	4,355	6.0	5,819	8.0	2,040	2.8	8,163	11.2
1984	65,893	72.0	5,477	6.0	8,526	9.3	1,900	2.1	9,696	10.6
1985	73,406	71.5	6,063	5.9	10,573	10.3	2,530	2.5	10,098	9.8
1986	76,407	69.4	7,576	6.9	12,603	11.4	2,767	2.5	10,726	9.7
1987	79,154	68.7	7,498	6.5	13,815	12.0	3,078	2.7	11,604	10.1
Exports										
1983	66,388	73.3	4,787	5.3	6,748	7.5	1,689	1.9	10,944	12.1
1984	84,816	76.2	5,715	5.1	7,098	6.4	1,938	1.7	11,763	10.6
1985	93,794	78.8	5,598	4.7	6,944	5.8	2,170	1.8	10,564	8.9
1986	93,323	77.8	5,822	4.9	8,013	6.7	2,189	1.8	10,542	8.8
1987	96,581	76.6	6,779	5.4	9,317	7.4	2,568	2.0	10,880	8.6

¹ EEC countries are Belgium, Denmark, France, the Federal Republic of Germany, Ireland, Italy, Luxembourg, the Netherlands, Greece, Portugal, Spain and the United Kingdom. Prior to 1986, Portugal and Spain were not included in the EEC.

² OECD countries include EEC countries, (referred to above) Austria, Finland, Iceland, Norway, Sweden, Switzerland, Turkey, Australia, New Zealand, the United States, Japan and Canada.

³ This group includes all countries other than the EEC countries and other OECD countries.

21.6 Trade by section, with principal trading areas on a customs basis, 1987

Item	United States %	Japan %	EEC ¹ %	Other OECD ² %	Other countries ³ %
Imports					
Live animals	96.1	—	2.7	0.2	1.0
Food, feed, beverages and tobacco	51.8	1.1	16.0	7.6	23.5
Crude materials, inedible	43.5	0.3	26.1	5.3	24.8
Fabricated materials, inedible	66.3	3.0	15.8	2.8	12.1
End products, inedible	71.8	8.5	8.9	2.0	8.8
Exports					
Live animals	87.0	0.4	2.6	0.1	9.9
Food, feed, beverages and tobacco	41.9	11.6	10.1	1.9	34.4
Crude materials, inedible	56.8	16.7	12.3	2.5	11.6
Fabricated materials, inedible	73.2	6.4	10.2	1.7	8.6
End products, inedible	89.3	0.7	3.8	1.8	4.3

¹ See footnote 1, Table 21.5.² See footnote 2, Table 21.5.³ See footnote 3, Table 21.5.**21.7 Measures of bilateral trade between Canada and the United States, 1983-87**
(billions of Canadian dollars)

Year	Southward trade			Northward trade			Trade balance		
	Canadian exports ¹	US imports ²	Reconciled data	Canadian imports ³	US exports ⁴	Reconciled data	Canada	US	Reconciled data
1983	66.5	64.3	67.6	54.3	47.2	53.1	12.2	17.1	14.4
1984	85.2	86.1	86.9	69.1	60.2	66.9	16.1	25.9	20.0
1985	93.2	94.2	95.0	74.6	64.5	73.5	18.6	29.7	21.5
1986	93.4	94.8	95.7	77.6	63.0	77.3	15.8	31.8	18.4
1987	94.8	94.3	96.3	79.5	79.2	79.3	15.3	15.1	17.0

¹ Canadian exports to the US as recorded by Canada.² Canadian exports to the US as recorded by the US.³ US exports to Canada as recorded by Canada.⁴ US exports to Canada as recorded by the US.**21.8 Price and volume indexes of trade by section, on a balance-of-payments basis, 1983-87 (1981 = 100)**

Item	Current weighted price indexes									
	Imports					Domestic exports				
	1983 ^f	1984 ^f	1985 ^f	1986 ^f	1987	1983 ^f	1984 ^f	1985 ^f	1986 ^f	1987
Index										
Food, feed, beverages and tobacco	95.3	101.6	100.3	107.1	105.8	94.3	97.1	99.0	92.4	86.6
Crude materials, inedible	89.7	94.4	93.5	70.5	73.7	90.9	90.1	86.9	68.1	67.3
Fabricated materials, inedible	101.2	106.6	104.6	104.5	103.2	96.8	103.5	101.8	101.3	106.2
End products, inedible	105.3	109.3	113.3	115.1	109.6	110.8	112.8	116.8	119.7	115.8
All sections	102.2	106.9	109.1	108.4	104.8	100.4	104.1	104.6	101.5	100.1
Percentage change from previous year										
Food, feed, beverages and tobacco	-2.9	6.6	-1.3	6.8	-1.2	-2.9	3.0	2.0	-6.7	-6.3
Crude materials, inedible	-6.3	5.2	-1.0	-24.6	4.5	-5.5	-0.9	-3.6	-21.6	-1.2
Fabricated materials, inedible	-0.2	5.3	-1.9	-0.1	-1.2	0.2	6.9	-1.6	-0.5	4.8
End products, inedible	-1.3	3.8	3.7	1.6	-4.8	2.8	1.8	3.5	2.5	-3.3
All sections	-1.4	4.6	2.1	-0.6	-3.3	-0.1	3.7	0.5	-3.0	-1.4

21.8 Price and volume indexes of trade by section, on a balance-of-payments basis, 1983-87 (1981 = 100) (concluded)

Item	Fixed weight volume indexes									
	Imports					Domestic exports				
	1983 ^f	1984 ^f	1985 ^f	1986 ^f	1987	1983 ^f	1984 ^f	1985 ^f	1986 ^f	1987
Index										
Food, feed, beverages and tobacco	101.5	113.6	114.9	121.4	124.4	114.6	112.8	99.8	111.1	127.5
Crude materials, inedible	62.3	70.2	70.4	81.2	86.2	106.6	125.8	145.4	147.6	165.1
Fabricated materials, inedible	95.0	105.6	121.6	126.0	138.1	98.2	108.0	113.9	117.7	127.3
End products, inedible	98.9	123.8	133.5	144.0	156.0	115.8	152.2	164.4	171.0	173.1
All sections	92.7	110.9	122.0	131.6	142.4	106.8	126.6	134.7	139.8	149.2
Percentage change from previous year										
Food, feed, beverages and tobacco	4.3	11.9	1.1	5.7	2.5	5.3	-1.6	-11.5	11.3	14.8
Crude materials, inedible	-13.2	12.7	0.3	15.3	6.2	2.7	18.0	15.6	1.5	11.9
Fabricated materials, inedible	14.6	11.2	15.2	3.6	9.6	8.3	10.0	5.5	3.3	8.2
End products, inedible	16.4	25.2	7.8	7.9	8.3	10.5	31.4	8.0	4.0	1.2
All sections	11.0	19.6	10.0	7.9	8.2	7.3	18.5	6.4	3.8	6.7

21.9 Value of imports into Canada from all countries on a customs basis, by section and commodity, 1983-87 (million dollars)

Section and commodity	1983	1984	1985	1986 ^f	1987
Live animals	132.2	94.3	109.3	158.7	162.1
Food, feed, beverages and tobacco					
Meat, fresh, chilled or frozen	311.1	399.4	386.7	412.9	493.4
Other meat and meat preparations	44.8	37.7	40.8 ^f	38.2	49.3
Fish and marine animals	417.6	487.5	493.5	612.7	691.0
Dairy produce, eggs and honey	115.2	135.0	135.1	157.4	166.6
Indian corn, shelled	67.8	99.3	94.2	97.4	50.6
Other cereals and cereal preparations	215.8	281.1	255.6	263.9	267.4
Bananas and plantains, fresh	120.8	124.1	135.4	152.2	146.4
Grapes, fresh	151.2	164.4	168.0	182.0	183.6
Oranges, mandarins and tangerines, fresh	121.1	153.8	154.5 ^f	174.3	184.7
Other fresh fruits and berries	313.2	354.1	394.4	445.5	461.7
Fruits, dried or dehydrated	80.9	86.0	74.3	76.6	83.7
Orange juice and concentrates	154.0	196.7	192.9	144.8	159.8
Other fruit juices and concentrates	58.1	72.3	78.2	93.9	108.8
Fruits and products, canned	80.4	107.6	104.8	103.9	106.0
Other fruits and fruit preparations	38.3	40.8	41.3	53.0	57.9
Nuts, except oil nuts	109.7	132.7	125.8	151.7	148.4
Tomatoes, fresh	96.6	99.5	107.4	116.3	106.7
Other fresh vegetables	388.9	446.1	441.5	490.5	558.3
Other vegetables and vegetable preparations	166.8	190.7	189.9	188.7	195.1
Raw sugar	201.7	189.5	153.7	218.5	163.0
Refined sugar, molasses and syrups	44.9	56.8	67.7	85.8	93.3
Sugar preparations and confectionery	120.9	167.8	211.0	204.0	205.2
Cocoa and chocolate	107.4	168.8	159.3	170.3	176.1
Coffee	401.3	474.2	477.8	648.9	461.8
Tea	68.5	102.7	88.5	86.6	75.1
Other foods and materials for foods	271.7	318.4	313.1	367.4	399.1
Oilseed cake and meal	127.4	165.9	145.0	171.2	171.6
Other fodder and feed	78.3	87.0	96.3	115.6	140.2
Distilled alcoholic beverages	131.9	164.7	153.2	173.6	157.9
Other beverages	201.6	265.3	287.3	310.1	339.0
Tobacco	63.0	42.3	32.4	34.7	27.1
Total, food, feed, beverages and tobacco	4,870.8	5,812.0	5,799.5	6,542.6	6,629.0

21.9 Value of imports into Canada from all countries on a customs basis, by section and commodity, 1983-87 (million dollars) (continued)

Section and commodity	1983	1984	1985	1986 ^r	1987
Crude materials, inedible					
Fur skins, undressed	135.4	157.1	197.5	185.7	231.3
Other crude animal products	81.5	91.7	71.2	80.6	104.2
Soybeans	95.9	98.6	69.7	39.6	62.6
Other oilseeds, oil nuts and oil kernels	72.9	81.2	73.8	85.4	81.1
Rubber and allied gums, natural	110.3	140.5	118.1	107.9	125.4
Other crude vegetable products	155.2	177.8	190.1	209.7	237.5
Crude wood materials	121.6	162.5	182.2	225.8	205.0
Wool and fine animal hair	35.6	37.8	41.3	45.1	45.5
Cotton	108.6	129.6	88.5	85.1	92.9
Man-made fibres	138.5	132.3	119.4	124.9	123.6
Other textile fibres	1.8	1.9	2.7	2.7	1.6
Iron ores and concentrates	233.2	292.7	349.1	294.5	257.9
Scrap iron and steel	51.9	106.1	78.0	66.1	75.2
Aluminum ores, concentrates and scrap	387.5	500.0	477.0	519.2	550.7
Other metals in ores, concentrates and scrap	978.2	955.2	754.6	1,077.0	759.8
Coal	841.4 ^r	1,093.5	886.7	744.0	724.9
Crude petroleum	3,319.2	3,375.6	3,695.2 ^r	2,884.6	3,179.4
Other crude bituminous substances	1.4	1.6	1.7 ^r	2.0	2.4
Abrasives, natural	18.3	21.7	21.8	23.5	28.5
Phosphate rock	97.9	121.5	111.8	97.4	73.0
Other crude non-metallic minerals	149.0	178.8 ^r	199.4	221.5	270.4
Other waste and scrap materials	105.6	136.2	122.0 ^r	142.6	171.7
Total, crude materials, inedible	7,241.0	7,994.1	7,852.1	7,265.0	7,404.4
Fabricated materials, inedible					
Leather and leather fabricated materials	130.3	152.4	148.4	178.8	246.2
Rubber fabricated materials	173.9	228.0	233.4	239.6	230.0
Lumber	281.1	281.5	280.8	360.0	424.2
Veneer	32.9	37.7	36.4	40.3	44.7
Plywood and wood building boards	133.6	64.4	70.2	108.7	131.0
Other wood fabricated materials	133.6	146.9	154.1	171.2	217.2
Wood pulp and similar pulp	86.5	129.3	131.9	138.3	142.7
Paper and paperboard	588.1	762.7	809.7	924.6	1,015.1
Cotton yarn and thread	40.4	42.3	39.5	45.3	71.3
Man-made fibre yarn and thread	201.9	200.0	212.5	250.9	299.1
Other yarn and thread	125.1	151.7	175.0	207.2	247.4
Cordage, twine and rope	29.7	30.1	28.7	32.6	36.1
Broad woven fabrics, wool and hair	56.0	78.4	85.5	93.5	90.9
Broad woven fabrics, cotton	137.6	170.2	222.8	234.2	295.4
Broad woven fabrics, man-made	152.7	167.3	181.8	225.3	256.7
Broad woven fabrics, mixed fibres	265.2	319.6	332.2	373.1	336.4
Other broad woven fabrics	40.1	44.8	41.9	42.0	42.3
Coated or impregnated fabrics	189.6	245.8	263.0	253.2	229.3
Other textile fabricated materials	244.3	284.3	302.8	347.3	356.3
Vegetable oils and fats, except essential oils	78.0	119.6	103.6	64.4	78.0
Other oils, fats, waxes, extracts and derivatives	113.7	134.1	126.0	133.3	143.6
Inorganic chemicals	410.5	497.7	509.3	523.8	524.1
Organic chemicals	1,266.4	1,464.7	1,508.6	1,616.5	1,679.8
Fertilizers and fertilizer materials	184.3	205.9 ^r	206.0 ^r	198.4	208.5
Synthetic and reclaimed rubber	161.7	207.1	218.3	234.9	267.3
Plastics materials, not shaped	751.4	842.1	886.6	976.3	1,098.7
Plastic film and sheet	268.5	331.1	377.4	425.8	491.8
Other plastics, basic shapes and forms	181.3	264.4	290.8	324.8	345.3
Dyestuffs, except dyeing extracts	76.2	72.7	66.5	80.8	94.2
Pigments, lakes and toners	81.1	99.9	106.1	131.5	152.1
Paints and related products	111.3	149.1	173.6	184.3	232.8
Other chemical products	899.8	1,077.8	1,100.1	1,143.6	1,133.5
Fuel oil	409.8	962.4	851.1	733.9	721.9
Lubricating oils and greases	62.3	81.3	76.3 ^r	74.1	122.0
Coke of petroleum and coal	135.3	163.9	176.5	179.1	163.5
Other petroleum and coal products	443.8	447.3	578.6	635.9	732.2
Bars and rods, steel	160.3	239.4	225.9	228.0	226.3
Plate, sheet and strip, steel	412.9	545.9	789.6	721.5	774.1
Structural shapes, steel and sheet piling	77.4	108.5	111.1	99.8	119.8
Pipes and tubes, iron and steel	246.2	323.8	447.7	288.5	311.1
Wire and wire rope, iron and steel	70.7	89.6	103.5	108.4	109.7
Other iron and steel and alloys	206.3	334.1	330.1	393.7	535.1
Aluminum, including alloys	438.2	714.6	694.2	765.4	868.8
Copper and alloys	176.1	192.4	184.3	204.9	234.9
Nickel and alloys	52.1	63.8	69.5	68.4	67.4
Precious metals, including alloys	1,227.3	1,111.5	1,465.9	1,869.9	1,138.9
Tin, including alloys	60.8	66.6	60.9	38.7	36.1
Other non-ferrous metals and alloys	94.3	109.3	126.3	126.4	139.6
Bolts, nuts and screws	198.6	287.7	320.9	330.3	324.2
Other basic hardware	314.5	401.3	448.2	486.1	530.3
Chains	38.8	54.4	51.0	52.8	57.0
Valves	171.0	220.5	282.5	259.2	255.1
Pipe fittings	119.8 ^r	129.2	154.6	141.8	165.4
Other metal fabricated basic products	328.1	344.5	334.9	350.5	404.6
Clay bricks, clay tiles and refractories	180.3	236.9	250.6	282.6	362.8
Sheet and plate glass	44.2	42.4	50.5	54.3	63.1
Other glass basic products	138.6	156.0	191.9	202.3	228.2

21.9 Value of imports into Canada from all countries on a customs basis, by section and commodity, 1983-87 (million dollars) (continued)

Section and commodity	1983	1984	1985	1986 ^f	1987
Fabricated materials, inedible (concluded)					
Abrasive basic products	85.2	110.0	113.0	122.6	126.2
Natural and synthetic gemstones	151.7	153.1	191.0	203.2	200.2
Other non-metallic mineral basic products	132.1	174.7	239.4	250.6	270.1
Electricity	2.5	12.9	8.1	9.2	9.0
Other fabricated materials, inedible	266.6	333.3	385.4	395.4	396.4
Total, fabricated materials, inedible	14,014.7	17,214.7	18,737.4	19,981.9	20,856.3
End products, inedible					
Machinery					
Engines and turbines, diesel and general purpose	101.3	126.2	131.7	139.2	140.9
Other engines and turbines, general purpose	321.5	228.3	293.8	255.7	207.7
Electric generators and motors	273.0	335.2	364.4	403.1	375.8
Bearings	208.4	292.0	300.0	337.5	359.8
Other mechanical power transmission equipment	187.8	255.8	266.0	285.6	287.1
Compressors, blowers and vacuum pumps	121.1	150.3	188.7	184.5	200.6
Pumps, except oil well pumps	132.1	161.3	189.4	206.9	213.0
Packaging machinery	119.9	178.7	178.5	189.3	216.4
Other general purpose industrial machinery	307.6	313.2	383.4	587.2	531.2
Conveyors and conveying systems	66.4	74.6	89.6	125.9	139.0
Elevators and escalators	22.0	30.4	30.6	38.3	49.7
Industrial trucks, tractors, trailers and stackers	92.8	164.1	197.5	217.6	266.7
Hoisting machinery	87.7	104.8	156.1	179.4	215.7
Other materials handling equipment	126.4	185.8	183.2	251.3	277.6
Drilling machinery and drill bits	347.7	347.2	477.0	245.4	252.3
Power shovels	173.2	209.5	300.6	271.9	349.7
Bulldozing and similar equipment	31.7	40.7	47.5	46.4	55.7
Front-end loaders	174.3	269.9	331.2	370.0	377.3
Other excavating machinery	88.0	135.3	184.0	249.7	243.0
Mining, oil and gas machinery	204.7	255.0	314.0	277.4	316.8
Construction and maintenance machinery	146.1	185.2	229.8	291.4	290.6
Machine tools, metalworking	259.3	372.0	517.1	702.3	675.5
Welding apparatus and equipment	91.9	81.5	116.9	184.5	139.4
Rolling mill machinery	53.3	66.3	61.4	98.2	87.7
Other metalworking machinery	237.2	294.5	337.3	442.9	429.0
Pulp and paper industries machinery	140.2	190.4	340.0	350.1	361.0
Printing presses	114.8	186.6	184.7	221.6	272.4
Other printing machinery and equipment	107.1	151.8	172.3	205.4	204.4
Spinning, weaving and knitting machinery	70.6	81.6	88.9 ^f	113.5	114.4
Other textile industries machinery	96.5	115.6	115.4	142.1	155.0
Food, beverages and tobacco industries machinery	157.7	188.0	187.5	220.8	245.3
Plastics and chemical industry	182.8	230.3	308.9	370.0	440.4
Other special industry machinery	446.7	602.2	659.3	979.4	1,137.1
Soil preparation, seeding and fertilizing machinery	101.4	133.9	113.8	102.2	77.6
Combine reaper-threshers	205.4	238.4	218.3	255.8	250.2
Other haying and harvesting machinery	110.2	146.6	138.2	154.0	166.6
Other agricultural machinery and equipment	210.0	225.5	246.2	266.6	276.4
Wheel tractors, new	550.7	581.9	574.6	511.8	449.4
Track-laying tractors and used tractors	72.3	82.1	120.4	129.1	142.6
Tractor engines and tractor parts	264.1	360.9	327.4	307.8	294.8
Sub-total, machinery	6,805.7 ^f	8,373.7 ^f	9,666.0 ^f	10,911.6	11,285.8
Transportation and communications equipment					
Railway and street railway rolling stock	138.4	223.2	301.1	441.1	389.3
Passenger automobiles and chassis	6,207.9	7,890.0	10,774.2	12,061.7	12,346.2
Trucks, truck tractors and chassis	1,169.8	2,035.9	2,558.6	2,947.2	3,292.9
Other motor vehicles	528.5	630.7	550.5	599.8	618.6
Motor vehicle engines	1,402.9	1,868.1	2,137.5	2,486.7	2,114.1
Motor vehicle engine parts	652.5 ^f	963.6	979.1	811.4	890.2
Motor vehicle parts, except engines	9,236.1 ^f	12,747.8	14,500.7	14,652.2	13,952.0
Marine engines and parts	160.7	221.1	221.2	274.7	254.1
Ships, boats and parts, except engines	618.7	421.0 ^f	187.5	186.0	279.6
Aircraft, complete with engines	808.2	865.0	1,095.3	1,117.4	750.6
Aircraft engines and parts	456.4	597.1	659.2	695.8	734.6
Aircraft parts, except engines	550.2	755.3	1,023.6	1,197.7	1,274.2
Other transportation equipment	471.9	692.6	584.5	595.9	724.0
Telephone and telegraph equipment	195.9	269.9	287.3	315.4	385.8
Televisions, radio sets and phonographs	597.7	834.0	831.1	916.3	878.6
Electronic tubes and semi-conductors	862.2	1,427.9 ^f	1,288.9	1,351.5	1,731.4
Other telecommunication and related equipment	1,659.6	2,140.0	2,143.4	2,460.1	2,345.6
Sub-total, transportation and communications equipment	25,717.7 ^f	34,583.1 ^f	40,123.8 ^f	43,111.0	42,961.5

21.9 Value of imports into Canada from all countries on a customs basis, by section and commodity, 1983-87 (million dollars) (concluded)

Section and commodity	1983	1984	1985	1986 ^F	1987
Other equipment and tools					
Air conditioning and refrigeration equipment	294.0	409.6	416.5	440.1	540.9
Electric lighting fixtures and portable lamps	161.6	215.3	267.0	322.7	374.6
Switchgear and protective equipment	131.4	138.6	157.1	176.1	184.5
Industrial control equipment	86.9	118.7	124.7	145.4	130.6
Other electric lighting distribution equipment	330.9	381.8	414.4	438.8	424.9
Auxiliary electric equipment for engines	428.1	574.8	549.3	570.7	660.5
Electrical property measuring instruments	183.7	241.1	243.6	243.8	254.5
Miscellaneous measuring and controlling instruments	268.8	381.0	405.9	415.6	395.6
Medical and related equipment	313.3	380.6	409.3	478.8	500.9
Navigation equipment	68.8	73.5	67.6	87.6	90.6
Other measuring and laboratory equipment	671.5	755.0	913.8 ^F	891.2	914.5
Safety and sanitation equipment	166.6	202.0	222.1	239.7	247.3
Service industry equipment	136.8	172.3	234.1	220.5	245.2
Furniture and fixtures	309.2	382.4	433.7	543.7	630.2
Hand tools and cutlery	344.8	424.3	433.3	506.9	530.0
Electronic computers	2,886.1	4,149.3	3,937.3	4,193.7	5,093.2
Other office machines and equipment	226.8	259.7	256.4	253.7	262.4
Miscellaneous equipment and tools	997.4	1,245.0	1,373.0	1,568.8	1,675.5
Sub-total, other equipment and tools	8,006.7	10,504.9 ^F	10,859.1 ^F	11,737.8	13,155.8
Personal and household goods					
Outerwear, except knitted	626.6	853.3	901.5	1,053.8	1,151.5
Outerwear, knitted	401.7	526.8	522.7	697.6	786.8
Other apparel and apparel accessories	264.4	348.9	380.3	442.5	474.4
Footwear	417.1	480.0	499.0	665.4	713.7
Watches, clocks, jewellery and silverware	223.0	289.8	320.1	361.5	330.7
Sporting and recreation equipment	254.4	271.0	309.2	342.1	381.0
Games, toys and children's vehicles	297.6	340.2	326.6	373.1	456.8
House furnishings	208.1	246.8	263.4	312.0	320.5
Kitchen utensils, cutlery and tableware	321.5	365.3	387.4	418.2	379.6
Other personal and household goods	406.2	471.6	493.5	578.6	629.2
Sub-total, personal and household goods	3,420.5 ^F	4,193.8 ^F	4,403.8 ^F	5,245.0	5,624.3
Miscellaneous end products					
Medicinal and pharmaceutical products	327.5	377.9	359.5	447.1	504.8
Medical, ophthalmic and orthopedic supplies	467.1	558.0	572.4	672.5	742.8
Newspapers, magazines and periodicals	401.7	465.9	444.0	466.8	488.2
Books and pamphlets	535.5	581.2	607.1	611.7	586.7
Other printed matter	276.3	330.0	333.8	391.9	378.3
Stationers' and office supplies	189.3	228.1	229.5	268.2	297.1
Unexposed photographic films and plates	318.7	371.9	331.4	366.4	399.0
Other photographic goods	620.0	762.3	685.5	802.8	836.3
Containers and closures	315.4	439.4	436.1	485.3	485.9
Other end products, inedible	878.5	1,041.3	1,175.6	1,301.9	1,448.2
Sub-total, miscellaneous end products	4,330.1 ^F	5,155.9 ^F	5,174.9	5,814.5	6,167.4
Total, end products, inedible	48,280.7 ^F	62,811.4	70,227.6	76,819.9	79,194.8
Special transactions — trade	980.7	1,533.5	1,629.4	1,743.3	1,992.1
Total, imports	75,520.0 ^F	95,460.0	104,355.2	112,511.4	116,238.6

21.10 Value of total exports from Canada to all countries on a customs basis, by section and commodity, 1983-87 (million dollars)

Section and commodity	1983	1984	1985	1986 ^c	1987
Live animals	341.1	520.2	467.8	349.6	367.7
Food, feed, beverages and tobacco					
Meat, fresh, chilled or frozen	658.6	728.3 ^f	791.4	941.0	1,006.3
Other meat and meat preparations	46.0	32.3	43.7	58.4	73.3
Fish, whole or dressed, fresh or frozen	259.5	315.7	382.2	519.4	478.8
Fish, fillets and blocks, fresh or frozen	501.8	515.8	561.2	751.6	908.4
Fish, preserved, except canned	134.7	132.1	139.4	188.8	219.0
Fish, canned	133.5	129.7	126.4	201.3	227.8
Shellfish	534.0	501.7	639.5	772.7	935.6
Dairy produce, eggs and honey	273.5	291.4	264.3	232.6	185.5
Barley	814.6	636.1	319.2	568.4	448.2
Wheat	4,647.7	4,724.7	3,778.6	2,835.8	3,224.0
Other cereals, unmilled	195.7	194.2	118.7	130.0	109.5
Hard spring wheat flour	80.7	114.7	84.8	69.6	54.2
Other cereals, milled	143.2	119.3	92.3	95.5	105.3
Cereal preparations	109.9	124.2	145.4	172.7	191.6
Fruits and fruit preparations	110.9	112.2	112.1	145.9	159.5
Vegetables and vegetable preparations	292.2	315.9	330.3	395.4	437.8
Sugar and sugar preparations	127.9	176.1	185.7	256.4	222.7
Other foods and materials for foods	144.7	219.0	256.4	309.4	326.1
Oilseed cake and meal	42.2	65.2	40.3	58.4	86.7
Other feeds of vegetable origin	135.1	150.5	116.2	128.9	125.9
Other fodder and feed	120.6	102.8	84.0	105.1	111.7
Whisky	340.2	363.1	352.0	322.1	338.1
Other beverages	164.5	195.2	200.7	220.5	234.3
Tobacco	120.3	127.3	107.5	142.0	140.1
Total, food, feed, beverages and tobacco	10,131.9 ^f	10,387.5	9,272.5	9,621.7	10,350.5
Crude materials, inedible					
Raw hides and skins	131.8	187.1	164.4	218.9	239.7
Fur skins, undressed	94.3	100.8	108.7	101.4	185.5
Other crude animal products	32.7	59.5	53.1	53.2	62.6
Seeds for sowing	48.2	27.5	30.5	55.3	76.1
Flaxseed	186.3	167.6	218.9	196.5	147.4
Rapeseed	432.5	648.5	543.6	422.3	490.6
Other oilseeds, oil nuts and oil kernels	70.1	101.7	86.5	100.0	99.6
Other crude vegetable products	113.9	140.5	159.0	190.9	197.0
Pulpwood	11.5	10.6	8.4	12.4	21.6
Pulpwood chips	89.3	85.4	83.2	77.7	73.9
Other crude wood products	174.4	263.0	203.1	230.2	371.8
Textile and related fibres	98.2	120.3	126.4	124.3	140.1
Iron ores and concentrates	972.0	1,112.1	1,174.1	1,108.3	968.4
Scrap iron and steel	81.7	95.3	120.5	110.9	152.4
Aluminum ores, concentrates and scrap	116.7	165.7	157.2	180.5	213.5
Copper in ores, concentrates and scrap	475.7	499.9	552.4	595.0	721.3
Lead in ores, concentrates and scrap	20.2	29.0	25.7	37.6	89.6
Nickel in ores, concentrates and scrap	336.6	581.0	580.4	476.8	510.5
Precious metals in ores, concentrates and scrap	391.4	381.1	295.5	371.8	449.3
Zinc in ores, concentrates and scrap	279.2	292.1	222.0	242.5	304.1
Radioactive ores and concentrates	62.6	333.7	233.6	167.0	278.1
Other metals in ores, concentrates and scrap	167.2	191.8	183.8	215.2	245.1
Crude petroleum	3,456.9	4,404.2	5,971.7	3,774.6	4,855.1
Natural gas	3,847.5	3,923.0	4,011.4	2,524.0	2,527.3
Coal and other crude bituminous substances	1,312.5	1,846.6	2,010.3	1,851.0	1,670.0
Asbestos, unmanufactured	454.9	498.9	446.4	401.1	363.8
Sulphur	572.4	831.3	1,288.7	1,109.0	885.2
Other crude non-metallic minerals	199.2	259.9	287.7	367.7	368.7
Other waste and scrap materials	63.9	79.6	92.6	106.3	131.4
Total, crude materials, inedible	14,293.9	17,437.7	19,439.9	15,422.5	16,839.6
Fabricated materials, inedible					
Leather and leather fabricated materials	37.4	40.0	41.8	48.9	48.9
Lumber, softwood	3,896.2	4,182.5	4,523.7	4,893.5	5,747.5
Lumber, hardwood	100.9	117.0	106.0	139.3	190.1
Shingles and shakes	231.1	264.5	257.4	268.4	217.7
Other sawmill products	17.5	27.6	25.8	27.0	34.8
Veneer	116.1	124.8	99.5	118.1	138.2
Plywood	141.8	147.9	149.3	121.3	131.8
Other wood fabricated materials	273.3	380.2	457.8	496.2	572.6
Wood pulp and similar pulp	3,048.8	3,906.5	3,410.8	4,072.5	5,473.9
Newsprint paper	3,955.8	4,783.5	5,411.6	5,661.2	6,028.7
Other paper for printing	411.6	558.5	530.3	621.8	870.0
Paperboard	177.0	222.5	200.4	280.2	302.9
Other paper	444.8	494.9	565.3	658.7	771.2
Yarn, thread, cordage twine and rope	91.2	96.6	112.2	151.6	144.2
Cotton broad woven fabrics	16.1	19.4	19.6	25.3	23.9
Other broad woven fabrics	53.0	67.1	65.5	76.4	106.1

21.10 Value of total exports from Canada to all countries on a customs basis, by section and commodity, 1983-87 (million dollars) (continued)

Section and commodity	1983	1984	1985	1986 ^r	1987
Fabricated materials, inedible (concluded)					
Other textile fabricated materials	83.0	120.1	118.5	142.7	181.8
Oils, fats, waxes, extracts and derivatives	184.9	324.5	359.3	247.9	227.0
Chemical elements	186.5	228.7	224.2	240.7	221.4
Other inorganic chemicals	785.6	1,045.4	1,134.3	1,232.4	1,205.9
Organic chemicals	1,259.3	1,345.5	1,387.6	1,161.1	1,379.0
Fertilizers and fertilizer materials	1,203.0	1,557.3	1,306.1	1,162.9	1,272.3
Synthetic rubber and plastics materials	530.3	644.0	816.1	889.0	1,156.8
Plastics, basic shapes and forms	202.9	275.0	332.5	465.3	512.1
Other chemical products	296.2	327.0	352.9	437.5	467.7
Petroleum and coal products	2,815.9	3,203.4	3,343.3	2,097.5	2,209.2
Ferro-alloys	41.0	36.9	43.8	55.7	34.8
Primary iron and steel	257.5	207.5	196.5	219.9	182.2
Castings and forgings, steel	169.6	221.0	194.3	190.5	198.1
Bars and rods, steel	284.5	372.6	392.9	424.9	447.4
Plate, sheet and strip, steel	458.5	703.0	806.9	809.9	992.9
Railway track material	11.8	47.8	41.0	42.1	90.6
Other iron and steel and alloys	446.6	664.8	716.0	689.6	734.0
Aluminum, including alloys	1,748.8	1,909.6	1,912.6	2,345.5	2,758.1
Copper and alloys	711.4	800.9	668.1	734.4	812.9
Lead, including alloys	83.5	94.7	67.4	78.8	105.1
Nickel and alloys	500.2	564.5	595.3	559.8	665.1
Precious metals, including alloys	1,830.7	2,286.9	1,982.5	3,122.0	1,521.0
Zinc, including alloys	502.9	677.7	648.9	442.6	484.4
Other non-ferrous metals and alloys	73.1	94.5	110.6	107.3	94.4
Metal fabricated basic products	678.5	854.2	930.6	982.2	1,049.6
Abrasive basic products	141.9	180.7	163.7	176.3	199.4
Other non-metallic mineral basic products	349.3	528.3	582.5	652.3	665.1
Electricity	1,228.4	1,377.8	1,424.8	1,086.1	1,199.8
Other fabricated materials, inedible	181.9	236.2	320.2	318.1	305.6
Total, fabricated materials, inedible	30,260.3	36,364.1	37,150.4	38,775.3	42,176.0
End products, inedible					
Machinery					
Engines and turbines, general purpose	173.1	264.9	251.3	364.8	280.2
Electrical generators and motors	78.4	112.2	131.7	142.6	154.2
Other general purpose industrial machinery	505.3	471.6	520.5	579.5	664.2
Materials handling machinery and equipment	427.9	525.5	489.2	484.6	548.1
Drilling, excavating and mining machinery	563.6	579.3	624.0	706.8	578.0
Metalworking machinery	194.6	320.6	331.7	415.0	311.3
Woodworking machinery and equipment	102.5	141.6	127.8	134.2	157.1
Construction machinery and equipment	164.2	177.4	165.4	208.7	212.3
Plastics industry machinery and equipment	217.9	286.7	306.6	378.3	405.5
Pulp and paper industries machinery	73.0	81.9	216.0	132.8	123.9
Other special industry machinery	241.0	289.2	338.2	349.4	431.8
Soil preparation, seeding and fertilizing machinery	87.3	89.7	71.3	86.0	119.7
Combine reaper-threshers and parts	117.8	107.8	105.7	54.7	52.9
Other haying and harvesting machinery	40.1	51.8	44.7	36.0	47.8
Other agricultural machinery and equipment	177.9	221.5	193.0	220.3	264.3
Tractors	237.7	291.6	213.3	169.4	168.8
Total, machinery	3,402.3	4,013.2^r	4,130.6^r	4,462.9	4,520.0
Transportation and communications equipment					
Railway and street railway rolling stock	175.7	224.6	217.4	520.6	485.4
Passenger automobiles and chassis	9,666.1	13,895.9	16,156.3	17,874.7	14,261.6
Trucks, truck tractors and chassis	4,246.1	5,484.8	5,937.6	5,211.1	6,102.0
Other motor vehicles	275.2	389.4	419.6	449.1	478.0
Motor vehicle engines and parts	1,609.0	2,166.4	2,056.9	1,849.1	1,955.7
Motor vehicle parts, except engines	5,883.9	7,938.5	9,153.2	9,578.0	9,871.7
Ships, boats and parts	187.3	250.5	198.9	273.4	264.5
Aircraft, complete with engines	412.6 ^r	415.2	464.5	826.3	495.3
Aircraft engines and parts	590.7	773.4	759.0	898.1	989.5
Aircraft parts, except engines	813.9	889.0	1,248.8	1,447.0	1,559.6
Other transportation equipment	562.5	722.9	727.8	836.9	813.8
Televisions and radio sets and phonographs	153.9	184.4	205.6	200.3	145.1
Other telecommunication and related equipment	1,608.5	2,534.1	2,734.1	2,493.9	2,715.7
Sub-total, transportation and communications equipment	26,185.4^r	35,869.2^r	40,279.6^r	42,458.6	40,138.0
Other equipment and tools					
Heating and refrigeration equipment	175.9	197.5	234.9	268.5	296.7
Cooking equipment for food	32.1	39.0	41.9	57.7	66.3

21.10 Value of total exports from Canada to all countries on a customs basis, by section and commodity, 1983-87 (million dollars) (concluded)

Section and commodity	1983	1984	1985	1986 ^f	1987
Other equipment and tools (concluded)					
Electric lighting and distribution equipment	279.5	398.7	464.3	474.4	462.5
Navigation equipment and parts	197.7	210.1	203.8	167.9	176.0
Other measuring, controlling laboratory, medical and optical equipment	493.1	534.9	555.5	718.5	736.7
Hand tools and miscellaneous cutlery	53.7	66.9	58.3	74.6	71.9
Office machines and equipment	1,378.5	1,805.3	1,881.7	1,887.4	2,492.3
Other equipment and tools	613.9	801.9	1,019.1	1,288.3	1,397.5
Sub-total, other equipment and tools	3,224.3 ^f	4,054.2 ^f	4,459.5	4,937.3	5,699.8
Personal and household goods					
Apparel and apparel accessories	233.8	308.3	345.5	414.5	479.5
Footwear	49.3	54.2	58.2	55.9	55.2
Toys, games, sporting and recreation equipment	128.9	206.3	195.1	214.3	211.3
Other personal and household goods	248.5	277.4	324.5	382.6	400.9
Sub-total, personal and household goods	660.6 ^f	846.3 ^f	923.3	1,067.3	1,147.0
Miscellaneous end products					
Medicinal and pharmaceutical products	142.4	138.2	140.4	166.2	181.6
Medical, ophthalmic and orthopedic supplies	81.4	95.2	113.6	122.1	164.2
Printed matter	319.8	425.6	510.7	633.4	633.4
Photographic goods	328.7	376.3 ^f	311.4	401.1	516.9
Firearms, ammunition and ordnance	75.3	175.1	239.5	203.0	138.3
Containers and closures	219.9	264.6	345.5	421.6	453.9
Prefabricated buildings and structures	129.5	178.0	189.2	242.8	246.0
Other end products	583.1	806.7	1,102.2	1,041.4	1,144.1
Sub-total, miscellaneous end products	1,880.1	2,459.7 ^f	2,952.7 ^f	3,231.5	3,478.5
Total, end products, inedible	35,352.6	47,242.6	52,745.7	56,157.6	54,983.3
Special transactions — trade	232.7	431.5	398.2	343.3	369.5
Total, exports	90,612.6	112,383.6	119,474.5	120,669.9	125,086.7

21.11 Value of total imports by geographic region and country on a customs basis, 1983-87 (million dollars)

Region and country ¹	1983	1984	1985	1986 ^f	1987
Western Europe					
United Kingdom	1,809.8	2,305.2	3,280.8	3,735.7	4,339.2
Gibraltar	—	—	—	0.2	—
Ireland	107.3	186.9	217.9	244.8	199.7
Malta	2.3	2.4	5.8	3.4	1.3
Austria	108.0	155.6	182.2	212.9	247.5
Belgium and Luxembourg	296.2	446.7	530.1	608.5	619.0
Denmark	136.9	200.8	228.9	233.6	249.0
Finland	75.8	148.2	200.1	254.0	287.8
France	841.0	1,220.3	1,372.8 ^f	1,586.1	1,488.7
Germany, Federal Republic of	1,574.8	2,174.8	2,715.7 ^f	3,453.4	3,534.5
Greece	44.1	40.8	47.9	70.3	63.6
Iceland	3.2	3.0	3.5	11.9	8.3
Italy	798.5	1,116.2	1,331.1	1,671.4	1,702.8
Netherlands	349.8	545.3	622.9	694.8	750.2
Norway	313.6	133.9	187.9	168.0	256.8
Portugal	58.3	60.9	87.3	78.3	89.1
Spain	181.9	316.4	366.5 ^f	441.4	485.2
Sweden	415.8	581.6	682.8	788.3	883.7
Switzerland	408.0	378.7	488.8 ^f	591.5	586.8
Total, Western Europe	7,525.1	10,017.7	12,552.9	14,848.4	15,793.1
Eastern Europe					
Albania	—	—	0.1	—	—
Bulgaria	5.6	6.4	9.8	9.3	9.6
Czechoslovakia	54.4	65.0	66.6	62.4	63.8
German Democratic Republic	10.2	31.6	11.9	27.0	34.0
Hungary	28.2	30.6	33.9	42.1	47.4

21.11 Value of total imports by geographic region and country on a customs basis, 1983-87 (million dollars) (continued)

Region and country ¹	1983	1984	1985	1986 ^r	1987
Eastern Europe (concluded)					
Poland	39.5	57.6	57.9	67.9	68.6
Romania	50.1	47.3	45.1	56.1	57.0
Union of Soviet Socialist Republics	33.3	28.7	27.7	25.4	35.5
Yugoslavia	29.0	38.6	43.3	45.4	70.7
Total, Eastern Europe	250.4	305.9	296.3	335.8	386.8
Middle East					
Bahrain	0.5	0.3	0.1	3.6	1.6
Cyprus	0.4	11.4	0.9	0.5	1.8
Qatar	0.1	0.3	0.2	0.6	0.3
United Arab Emirates	2.4	6.6	2.1	2.1	48.7
Egypt	98.7	73.0	30.6	5.1	34.0
Ethiopia	2.0	0.2	1.2	2.2	1.9
Iran	526.8	175.2	143.2	236.1	110.3
Iraq	0.9	—	0.5	0.8	80.8
Israel	55.9	81.8	93.0	130.0	116.4
Jordan	0.2	—	0.1	1.6	0.6
Kuwait	18.3	0.4	0.1	0.3	0.6
Lebanon	0.8	0.9	1.1 ^r	1.1	1.6
Libya	34.9	72.4	37.7	22.7	—
Oman (Muscat)	—	0.1	0.3	4.4	49.6
Saudi Arabia	94.0	1.4	23.8	186.9	175.1
Somalia	—	—	0.1	0.1	—
Sudan	0.7	0.6	—	—	1.5
Syria	50.2	0.2	0.2	—	0.4
Turkey	12.8	26.8	35.9	56.8	78.3
Yemen, North	—	—	0.1	0.1	0.1
Yemen, South	0.1	0.1	0.2	0.8	1.0
Total, Middle East	899.7	451.5	371.2	655.7	704.6
Other Africa					
Gambia	—	—	—	0.1	0.1
Ghana	2.6	1.1	—	0.1	6.3
Kenya	11.4	15.5	14.2	20.9	12.6
Malawi	6.4	2.9	1.0	1.6	1.0
Mauritius and Dependencies	6.2	9.6	6.6	13.5	27.6
Nigeria	192.7	250.7	229.8	368.2	251.5
Zimbabwe	6.5	9.3	5.2	6.7	13.7
Sierra Leone	0.1	—	—	8.2	10.2
South Africa	194.1	221.8	227.7	373.2	155.4
Tanzania	2.1	4.2	3.7	3.1	2.3
Uganda	0.3	1.0	1.8	2.4	2.0
Zambia	—	0.3	—	0.1	—
Commonwealth Africa, other	33.3	15.8	15.7	29.2	—
Algeria	150.1	307.0	321.9	11.5	22.1
Angola	—	—	0.9	42.4	121.8
Benin	—	—	—	—	—
Cameroon	1.3	1.2	4.4	0.3	1.2
French Africa, other	0.6	1.1	1.3	16.6	11.2
Gabon	3.0	6.6	34.6	5.8	5.8
Guinea	19.3	10.0	9.6	15.2	19.5
Ivory Coast	10.5	38.3	17.9	15.8	13.2
Liberia	0.1	—	1.6	1.3	1.8
Madagascar	0.7	1.7	1.2	7.8	0.1
Mauritania	—	—	—	—	—
Morocco	15.8	15.0	13.5	19.4	29.4
Mozambique	0.3	0.5	0.3	0.1	1.5
Portuguese Africa, other	—	—	—	—	0.2
Senegal	1.3	0.2	0.4	0.1	0.2
Spanish Africa	—	—	0.5	0.4	2.4
Togo	—	—	2.4	3.2	14.1
Tunisia	1.5	23.8	101.2	9.4	2.3
Zaire	17.0	13.9	16.4	33.9	30.6
Total, other Africa	677.4	951.6	1,033.7	1,010.2	760.1
Other Asia					
Bangladesh	10.5	14.7	16.4	18.5	23.0
Hong Kong	820.5	966.2	886.8	1,041.5	1,137.6
India	101.1	147.1	168.2	165.4	170.9
Malaysia	115.6	168.0	146.4	150.2	187.3
Pakistan	18.5	54.2	30.0	146.9	61.6
Singapore	168.5	214.6	210.5	210.0	261.9
Sri Lanka	21.7	33.9	33.0	35.8	34.3
Afghanistan	0.2	0.2	0.2	—	0.7
Burma	0.3	0.2	0.8	1.6	0.7
China, People's Republic of	245.8	333.5	403.5	566.1	770.9
Indonesia	40.0	71.9	81.8	114.2	168.0
Japan	4,412.9	5,711.5	6,114.8	7,632.2	7,550.7

21.11 Value of total imports by geographic region and country on a customs basis, 1983-87 (million dollars) (concluded)

Region and country ¹	1983	1984	1985	1986 ^F	1987
Other Asia (concluded)					
Laos	—	—	0.2	—	—
Korea, North	0.1	0.4	0.5	0.6	1.6
Korea, South	791.4	1,152.3	1,607.0	1,749.4	1,844.0
Nepal	0.1	0.3	0.5	0.8	0.8
Philippines	88.3	117.3	109.1	109.4	107.1
Portuguese Asia	10.0	15.9	12.7	18.8	19.4
Taiwan	925.5	1,225.8	1,286.2	1,744.8	2,023.0
Thailand	60.6	103.4	108.7	150.3	200.8
Vietnam	0.2	2.2	2.2	6.7	7.7
Total, other Asia	7,831.6	10,331.7	11,219.4	13,863.3	14,571.6
Oceania					
Australia	358.4	382.1	386.6	505.4	564.1
Fiji	6.0	5.7	6.6	4.8	6.5
New Zealand	156.6	122.4	160.3	174.8	199.7
British Oceania, other	—	0.1	—	—	—
French Oceania	0.5	0.5	—	0.8	0.5
Papua New Guinea	0.4	3.5	51.1	0.6	11.7
United States Oceania	0.2	—	0.1	0.3	1.8
Total, Oceania	522.1	514.3	604.8	686.8	784.2
South America					
Falkland Islands	—	—	—	—	0.2
Guiana	19.2	26.2	23.3	27.2	33.8
Argentina	52.8	92.3	90.9	87.3	111.6
Bolivia	16.6	7.9	8.4	9.6	3.7
Brazil	500.0	668.7	809.3 ^F	821.5	850.5
Chile	133.8	122.1	130.5	127.5	153.3
Colombia	94.3	109.6	88.8	124.2	133.0
Ecuador	62.0	83.1	71.5	92.2	95.7
French Guiana	—	—	0.2	0.1	—
Paraguay	3.7	2.7	3.2	7.2	0.8
Peru	119.6	102.1	68.0	65.7	75.2
Surinam	7.4	1.1	0.6	1.7	3.6
Uruguay	32.8	16.6	8.3	14.9	130.2
Venezuela	1,004.5	1,207.2	1,092.1	523.9	551.2
Total, South America	2,046.6	2,439.5	2,395.1 ^F	1,902.8	2,142.7
Central America and Antilles					
Bahamas	50.6	127.5	38.9	29.8	42.2
Barbados	8.1	7.4	7.0	21.3	21.1
Belize	8.9	3.1	5.0	1.2	5.8
Bermuda	18.8	2.5	1.7	27.1	5.5
Jamaica	109.7	138.7	155.2	149.9	113.8
Leeward and Windward Islands	1.5	2.2	2.4	5.4	5.5
Trinidad and Tobago	9.0	19.0	29.6	53.7	36.9
Costa Rica	62.4	38.6	41.3	56.6	63.2
Cuba	56.3	62.7	44.5	71.3	51.6
Dominican Republic	19.4	31.9	18.3	36.0	29.5
El Salvador	35.0	25.0	35.6	64.2	43.2
French West Indies	0.1	0.1	0.1	1.3	0.3
Guatemala	20.8	36.3	26.2	40.4	33.0
Haiti	10.8	16.6	9.6	12.2	8.7
Honduras	35.9	30.5	20.9	20.7	16.9
Mexico	1,089.4	1,437.8	1,330.9 ^F	1,176.5	1,169.6
Netherlands Antilles	11.9	36.5	20.2	16.3	19.6
Nicaragua	32.1	45.3	25.6	34.1	28.7
Panama	46.6	39.5	22.5	28.0	30.7
Puerto Rico	146.7	177.2	199.2	195.1	226.9
Virgin Islands of the United States	1.2	1.0	27.3	40.8	54.0
Total, Central America and Antilles	1,775.3	2,279.5	2,061.9 ^F	2,081.9	2,006.7
North America					
Greenland	2.4	2.0	3.1	3.2	18.2
St. Pierre and Miquelon	0.5	0.4	0.5	0.4	1.3
United States	53,989.0 ^F	68,165.8	73,816.4 ^F	77,123.0	79,069.3
Total, North America	53,991.9 ^F	68,168.2	73,820.0 ^F	77,126.6	79,088.8
Total, all countries	75,520.0 ^F	95,460.0	104,355.2	112,511.4	116,238.6

In this table a dash indicates that either there was no trade or the amount was less than \$500.

¹ The country classification was designed for purposes of economic geography and does not reflect the views of the Government of Canada on international issues of recognition, sovereignty or jurisdiction.

21.12 Value of total exports by geographic region and country on a customs basis, 1983-87 (million dollars)

Region and country ¹	1983	1984	1985	1986 ^r	1987
Western Europe					
United Kingdom	2,505.4	2,535.2	2,482.2	2,731.9	3,029.7
Gibraltar	0.1	0.5	0.4	0.1	0.2
Ireland	99.1	99.3	84.6	91.5	145.3
Malta	2.1	1.6	0.7	1.1	1.8
Austria	53.2	47.7	59.0	52.4	95.8
Belgium and Luxembourg	714.3	702.2	722.0	846.0	1,167.5
Denmark	68.5	98.7	84.7	111.8	115.4
Finland	89.2	122.3	133.8	85.9	101.9
France	654.1	736.1	743.4	1,012.8	1,086.8
Germany, Federal Republic of	1,175.9	1,225.3	1,232.9	1,309.1	1,606.3
Greece	49.4	50.5	41.7	66.2	68.0
Iceland	5.6	3.7	3.4	7.6	12.8
Italy	569.3	600.7	542.1	711.7	869.0
Netherlands	974.7	1,088.8	956.3	1,009.7	1,071.7
Norway	246.2	337.6	383.5	319.8	321.2
Portugal	61.2	63.5	62.4	154.7	174.0
Spain	144.5	100.3	134.2	138.5	217.5
Sweden	153.4	178.2	199.2	247.6	266.7
Switzerland	258.2	243.6	324.0	353.4	437.1
Total, Western Europe	7,824.4	8,235.6	8,190.7	9,252.0	10,788.5
Eastern Europe					
Albania	—	0.3	0.2	0.1	0.7
Bulgaria	7.7	7.2	29.3	54.3	35.9
Czechoslovakia	15.3	19.0	23.1	14.4	14.8
German Democratic Republic	202.4	215.2	111.8	117.7	56.1
Hungary	14.9	14.4	16.0	11.4	16.6
Poland	45.9	37.5	36.2	20.2	15.0
Romania	19.0	23.7	39.2	131.5	54.3
Union of Soviet Socialist Republics	1,763.6	2,122.6	1,611.7	1,221.6	801.5
Yugoslavia	52.4	79.9	42.7	42.6	18.3
Total, Eastern Europe	2,121.2	2,519.6	1,910.4	1,613.7	1,013.1
Middle East					
Bahrain	4.7	5.4	6.0	7.8	11.5
Cyprus	11.9	11.1	1.3	10.1	14.4
Qatar	10.1	11.0	5.7	7.9	3.6
United Arab Emirates	35.2	25.8	20.0	25.4	22.9
Egypt	140.5	293.2	192.8	135.2	85.4
Ethiopia	28.9	36.0	61.1	31.8	36.2
Iran	209.5	147.2	65.1	37.1	170.4
Iraq	117.2	166.5	71.6	106.1	119.9
Israel	132.5	160.6	143.6	139.4	161.4
Jordan	12.9	10.6	5.5	6.9	9.5
Kuwait	65.7	68.3	32.0	36.3	25.0
Lebanon	14.6	11.5	11.0	17.7	10.2
Libya	78.7	72.7	95.2	74.4	29.7
Oman (Muscat)	9.1	7.1	10.6	6.2	4.7
Saudi Arabia	368.8	357.9	235.3	215.9	272.6
Somalia	0.8	5.0	0.1	1.9	0.8
Sudan	16.3	14.9	19.1	23.1	12.2
Syria	80.4	102.0	41.7	12.3	8.9
Turkey	104.4	177.4	221.4	203.0	266.6
Yemen, North	0.6	5.8	17.0	4.9	2.9
Yemen, South	2.0	4.2	3.1	11.0	5.8
Total, Middle East	1,444.7	1,694.4	1,259.3	1,114.5	1,274.7
Other Africa					
Gambia	0.1	0.1	—	0.1	0.6
Ghana	22.6	28.0	24.7	29.5	25.6
Kenya	13.1	23.9	18.0	54.6	9.6
Malawi	1.1	1.0	0.7	0.9	3.8
Mauritius and Dependencies	0.4	0.5	0.9	1.0	1.1
Nigeria	50.8	75.9	70.3	26.4	23.1
Zimbabwe	4.7	10.6	11.6	7.9	9.3
Sierra Leone	0.9	0.5	0.2	0.2	0.3
South Africa	171.5	206.8	155.1	190.3	116.0
Tanzania	17.5	17.4	18.1	25.9	26.0
Uganda	3.1	1.3	0.6	1.3	0.8
Zambia	3.2	11.2	7.1	12.6	19.9
Commonwealth Africa, other	4.0	5.0	2.3	0.4	0.3
Algeria	449.3	453.1	332.3	194.0	201.8
Angola	3.5	1.8	4.3	1.2	4.8
Benin	0.7	0.9	0.7	2.4	3.3
Cameroon	19.0	18.1	34.5	14.4	17.4
French Africa, other	12.9	31.0	41.4	23.3	26.6
Gabon	1.0	2.7	1.4	12.6	1.4
Guinea	1.3	3.2	18.2	3.0	3.9

21.12 Value of total exports by geographic region and country on a customs basis, 1983-87
(million dollars) (continued)

Region and country ¹	1983	1984	1985	1986 ²	1987
Other Africa (concluded)					
Ivory Coast	3.2	17.0	18.3	7.5	11.4
Liberia	4.5	5.3	3.1	2.5	4.0
Madagascar	1.9	3.5	6.2	1.8	5.8
Mauritania	4.0	3.8	3.5	0.3	1.7
Morocco	59.5	60.6	170.0	154.8	203.9
Mozambique	10.5	34.1	7.0	6.5	18.5
Portuguese Africa, other	0.4	1.8	2.1	2.4	3.1
Senegal	19.4	19.7	22.0	15.3	13.0
Spanish Africa	0.4	2.1	0.2	2.2	1.1
Togo	5.0	4.7	3.7	4.9	0.8
Tunisia	47.0	76.6	79.0	75.6	75.6
Zaire	13.0	14.8	21.7	17.0	17.8
Total, other Africa	949.4	1,136.9	1,079.3	892.8	852.1
Other Asia					
Bangladesh	114.8	103.0	106.9	101.5	124.7
Hong Kong	229.3	232.3	345.6	333.4	491.0
India	262.7	474.1	496.3	357.7	274.8
Malaysia	119.7	185.0	209.2	108.9	121.2
Pakistan	69.7	91.6	142.6	160.8	82.4
Singapore	130.1	146.6	120.1	154.8	177.7
Sri Lanka	53.0	46.8	23.3	43.0	30.9
Afghanistan	0.1	0.2	0.2	0.2	—
Burma	1.6	2.6	5.4	0.4	1.1
China, People's Republic of	1,608.5	1,242.9	1,296.8	1,127.0	1,437.7
Indonesia	214.5	292.3	258.8	255.0	309.6
Japan	4,755.3	5,666.5	5,737.1	5,967.8	7,073.9
Laos	—	—	0.5	—	0.1
Korea, North	1.2	2.6	1.2	1.3	7.1
Korea, South	563.4	725.8	786.4	976.7	1,178.2
Nepal	1.2	6.1	1.3	1.3	3.8
Philippines	77.5	58.0	46.4	49.9	122.7
Portuguese Asia	0.1	0.1	0.1	0.3	0.8
Taiwan	344.7	429.5	433.7	615.6	765.8
Thailand	147.5	127.5	132.6	111.9	200.8
Vietnam	1.2	2.0	2.1	2.9	2.4
Total, other Asia	8,696.2	9,835.3	10,146.4	10,370.2	12,406.7
Oceania					
Australia	468.7	656.6	675.8	653.4	702.5
Fiji	2.9	2.5	2.3	6.2	2.6
New Zealand	125.6	193.9	193.0	152.3	140.5
British Oceania, other	0.2	0.5	1.3	0.2	0.3
French Oceania	1.5	1.4	1.1	3.1	3.4
Papua New Guinea	9.4	2.5	2.0	12.5	2.9
United States Oceania	1.7	2.8	2.3	6.8	3.5
Total, Oceania	610.0	860.2	877.9	834.5	855.8
South America					
Falkland Islands	—	—	0.1	—	—
Guiana	4.3	7.5	4.5	4.7	5.8
Argentina	98.3	93.5	63.9	71.2	102.3
Bolivia	3.8	11.0	3.0	9.0	5.0
Brazil	625.3	798.6	685.9	791.1	645.5
Chile	71.4	81.4	82.2	93.1	101.0
Colombia	230.5	218.9	163.3	190.3	269.6
Ecuador	48.4	50.0	50.3	83.6	43.5
French Guiana	—	—	0.2	3.4	0.2
Paraguay	1.2	9.1	2.3	2.4	6.5
Peru	85.3	96.3	48.8	111.8	122.8
Surinam	3.6	2.1	3.6	1.5	1.4
Uruguay	6.7	9.9	5.4	12.8	26.0
Venezuela	308.9	291.6	332.7	416.6	389.4
Total, South America	1,487.6	1,670.1	1,446.1	1,791.5	1,718.9
Central America and Antilles					
Bahamas	30.5	41.3	28.2	28.9	33.2
Barbados	40.4	41.3	34.2	43.8	44.5
Belize	2.1	4.9	4.4	4.0	6.2
Bermuda	30.9	35.0	34.3	32.6	39.4
Jamaica	66.8	76.3	54.8	73.3	99.3
Leeward and Windward Islands	33.4	32.2	43.2	81.2	49.0
Trinidad and Tobago	155.6	141.5	100.7	91.0	75.3
Costa Rica	22.4	21.6	21.4	28.1	35.9
Cuba	362.9	339.5	330.3	368.0	274.5
Dominican Republic	46.8	32.8	36.0	54.2	56.8

21.12 Value of total exports by geographic region and country on a customs basis, 1983-87 (million dollars) (concluded)

Region and country ¹	1983	1984	1985	1986 ^r	1987
Central America and Antilles (concluded)					
El Salvador	18.6	15.8	15.2	11.3	15.7
French West Indies	2.3	2.1	1.3	2.4	8.0
Guatemala	15.9	21.9	17.8	15.3	20.3
Haiti	15.2	19.0	25.9	21.1	25.6
Honduras	11.6	31.6	14.1	14.0	14.1
Mexico	377.0	357.0	398.7	403.6	530.2
Netherlands Antilles	10.8	10.8	8.6	8.0	12.3
Nicaragua	16.0	22.5	18.9	23.2	10.3
Panama	30.8	40.1	55.0	45.6	39.5
Puerto Rico	122.9	170.6	213.3	208.5	237.0
Virgin Islands of the United States	26.4	13.9	14.4	5.4	6.3
Total, Central America and Antilles	1,439.4	1,471.6	1,470.6	1,563.6	1,633.1
North America					
Greenland	3.8	4.8	9.2	3.6	4.3
St. Pierre and Miquelon	24.5	26.6	25.4	27.6	33.9
United States	66,011.5	84,928.3	93,059.4	93,206.1	94,505.7
Total, North America	66,039.7	84,959.8	93,093.9	93,237.2	94,543.9
Total, all countries	90,612.6	112,383.6	119,474.5	120,669.9	125,086.7

In this table a dash indicates that either there was no trade or the amount was less than \$500.

¹ The country classification was designed for purposes of economic geography and does not reflect the view of the government of Canada on international issues of recognition, sovereignty or jurisdiction.

21.13 Receipts and payments on travel between Canada and other countries, selected years (million dollars)

Country	1978	1982	1983	1984	1985	1986	1987
United States							
Receipts	1,650	2,402	2,664	3,146	3,674	4,506	4,160
Payments	2,553	3,234	3,903	3,991	4,158	4,429	5,174
Balance	-903	-832	-1,239	-845	-484	+77	-1,014
Other countries							
Receipts	728	1,322	1,177	1,270	1,332	1,827	2,139
Payments	1,531	1,774	2,142	2,551	2,952	3,070	3,654
Balance	-803	-452	-965	-1,281	-1,620	-1,243	-1,515
All countries							
Receipts	2,378	3,724	3,841	4,416	5,006	6,333	6,299
Payments	4,084	5,008	6,045	6,542	7,110	7,499	8,828
Balance	-1,706	-1,284	-2,204	-2,126	-2,104	-1,166	-2,529

21.14 Total assistance disbursements, by program¹, 1983-84 to 1987-88 (million dollars)

Program	1983-84	1984-85	1985-86	1986-87	1987-88
Country-to-country (bilateral)	1,139.69	1,412.51	1,309.40	2,521.24	2,609.08
Government-to-government					
Anglophone Africa	146.70	195.06	159.60	218.12	293.70
Francophone Africa	137.68	195.82	176.09	198.99	200.67
Americas	97.38	127.92	116.38	153.03	165.53
Asia	275.58	337.04	355.46	378.42	414.43
Europe	0.03	-0.01	-2.30	-3.13	-1.99
Oceania	1.40	1.30	1.54	1.28	2.37
Miscellaneous	19.74	17.50	9.44	20.30	26.49
Sub-total, government-to-government	678.51	874.64	816.21	967.02	1,101.20

21.14 Total assistance disbursements, by program¹, 1983-84 to 1987-88 (million dollars) (concluded)

Program	1983-84	1984-85	1985-86	1986-87	1987-88
Other country-to-country					
Canadian non-governmental organizations	177.68	168.65	196.84	224.72	250.38
International non-governmental organizations	19.00	21.44	22.52	24.04	24.55
International Development Research Centre	63.67	76.25	82.28	90.69	93.93
Humanitarian assistance	40.21	75.15	25.85	37.73	47.53
Industrial co-operation	...	...	27.83	32.38	38.53
Petro-Canada International Assistance Corp.	42.03	51.54	20.92	55.32	65.77
International Centre for Ocean Development	—	0.80	0.42	2.33	4.01
Scholarship programs	4.09	4.40	5.96	8.55	11.57
Miscellaneous programs	22.61	40.32	1.69	0.50	13.40
Administrative costs	91.89	99.32	108.88	124.85	134.85
Sub-total, other country-to-country	461.18	537.87	493.19	601.12	684.52
Multilateral assistance					
General funds	73.50	72.25	72.25	78.50	84.20
Renewable natural resources	40.38	13.90	14.00	22.57	32.37
Population and health	12.95	12.85	13.75	17.75	16.05
Commonwealth and francophone programs	15.91	17.41	19.10	19.97	22.83
Other programs	6.10	5.87	5.45	12.45	21.62
International humanitarian assistance	9.75	12.80	14.80	14.75	15.15
World Food Program	146.29	146.03	150.30	166.38	172.77
Contributions to regular budgets and voluntary funds by External Affairs and other departments	25.36	27.32	29.63	30.96	36.25
International financial institutions	342.04	376.03	545.34	590.82	437.10
Sub-total, multilateral assistance	672.27	684.47	864.61	954.16	838.38
Total assistance (ODA)	1,811.95	2,096.97	2,174.01	2,522.29	2,624.06
ODA/GNP ratio (%)	0.455	0.489	0.464	0.500	0.481

¹ CIDA funds and others.

21.15 Department of National Defence expenditures, by province and outside Canada, 1983-84 to 1987-88 (million dollars)

Province or territory	1983-84	1984-85	1985-86	1986-87	1987-88
Newfoundland	52.3	65.6	76.1	123.3	103.6
Prince Edward Island	90.0	69.8	69.6	87.6	61.7
Nova Scotia	761.0	952.0	977.6	1,242.7	975.7
New Brunswick	352.9	382.3	336.2	407.4	960.0
Quebec	1,071.4	1,178.4	1,195.0	1,183.2	1,883.5
Ontario	2,326.6	2,687.3	2,747.2	2,934.3	3,465.7
Manitoba	289.7	350.9	357.6	425.3	398.7
Saskatchewan	115.8	131.1	132.8	153.5	97.8
Alberta	526.1	635.8	626.9	756.5	608.2
British Columbia	611.5	733.9	769.1	881.5	760.7
Yukon	1.4	1.6	1.5	1.0	2.3
Northwest Territories	31.6	35.5	22.4	29.2	6.9
Sub-total, Canada	6,230.3	7,224.2	7,312.0	8,225.5	9,324.6
Outside Canada	1,741.9	1,701.9	1,855.8	1,661.0	1,325.8
Total	7,972.2	8,926.1	9,167.8	9,886.5	10,650.4

21.16 Canadian Armed Forces strength, selected years

Fiscal years ending March 31	Navy ¹	Army ¹	Air Force ¹	Canadian Armed Forces	Total
1962	21,500	51,855	53,119	...	126,474
1969	18,291	37,445	42,604	...	98,340
1972	15,388	32,212	37,333	...	84,933
1976	7,599	18,295	21,943	31,901	79,738
1978	6,501	15,500	18,700	40,436	81,137
1979	5,952	14,212	17,209	43,218	80,591
1980	5,437	13,032	15,771	46,058	80,299
1981	4,943	11,832	14,284	49,802	80,861
1982	4,543	10,671	12,992	54,652	82,858
1983	4,188	9,899	12,089	56,729	82,905
1984	3,927	9,233	11,292	57,223	81,675
1985	3,563	8,515	10,221	61,441	83,740
1986	3,252	7,799	9,184	64,138	84,373
1987	2,868	6,921	8,023	68,187	85,999
1988	2,550	6,161	7,020	70,653	86,384

¹ After 1972, no navy, army or air force existed *per se*. The figures provided in these columns are based on Prior Single Service Affiliation.

Sources

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21.2 - 21.12 International Trade Division, Statistics Canada.

21.13 Education, Culture and Tourism Division, Statistics Canada.

21.14 Public Affairs Branch, Canadian International Development Agency.

21.15, 21.16 Director General Information, Department of National Defence.

CHAPTER 22

GOVERNMENT FINANCE

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GOVERNMENT FINANCE

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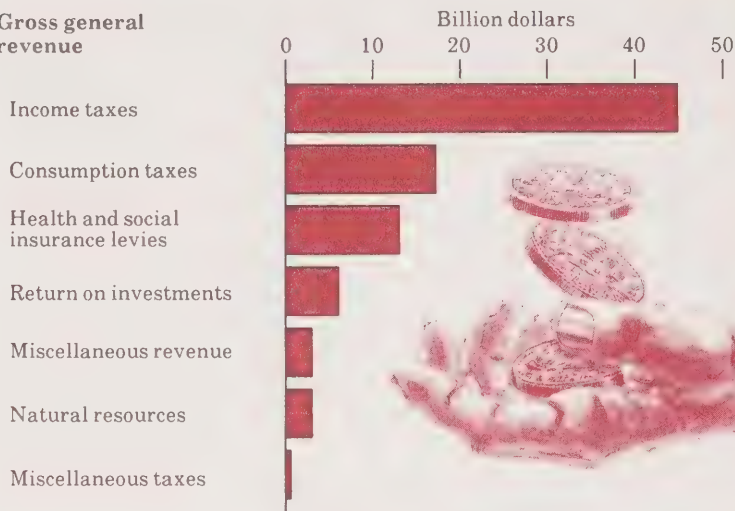
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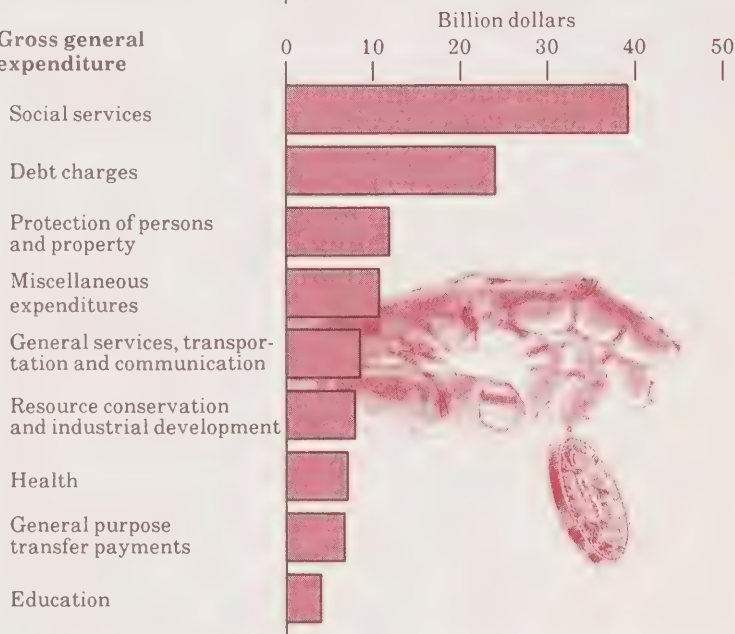
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Gross general revenue



Gross general expenditure



Note: 1986 refers to year ended March 31.

GROSS GENERAL REVENUE AND GROSS GENERAL EXPENDITURE OF THE FEDERAL GOVERNMENT, 1986

Gross general revenue during 1985-86 was \$89,344 million while the gross general expenditure totalled \$120,448 million. Major sources of growth for 1985-86 revenue over 1984-85 revenue were personal income taxes, general sales taxes, tobacco tax, unemployment insurance contributions, and returns on investments.

CHAPTER 22

GOVERNMENT FINANCE

Statistics Canada produces two sets of data on government finance: *estimates data* derived from the budgets and financial estimates of the various levels of government, and *actual data* derived from audited public accounts and published financial statements.

The estimates data are less detailed but apply to current reference periods and are available on CANSIM (Canadian Socio-economic Information Management System), Statistics Canada's machine-readable data base. The actual data series are issued in printed reports and publications.

Both these sets of statistics are produced in accordance with the System of Financial Management Statistics (FMS) which provides a standardized presentation of government accounting for the federal, provincial and local governments of Canada. The individual government accounts systems are not directly comparable because they reflect the policies and structures of the applicable government. The FMS adjusts data from government budgets' estimates, public accounts and other records to provide detailed, intergovernmentally comparable data as well as consistent national aggregates, therefore, FMS data will not agree precisely with figures released through governments' public accounts.

This chapter is based on actual data as published; users requiring more current information should access the CANSIM data.

22.1 Review of revenue and expenditure

The federal government incurred a deficit, on a financial management basis, of \$31,096 million for the fiscal year 1985-86, down from the \$34,539 million deficit incurred in 1984-85. Gross general revenue, during 1985-86, amounted to \$89,344 million while gross general expenditure totalled \$120,440 million. For 1984-85, gross general revenue was \$82,852 million and gross general expenditure was \$117,391 million.

22.1.1 Gross general revenue

Gross general revenue (Table 22.2) increased by \$6,492 million (7.3%) in 1985-86 compared to the \$6,994 million (8.4%) rise in 1984-85. The major sources of this increase were: personal income taxes, general sales taxes, tobacco tax, unemployment insurance contributions, and return on investments. Overall revenue growth was somewhat offset by lower oil and gas revenues and a drop in corporate income tax receipts.

In 1985-86, personal income tax, the largest source of the rise in federal revenues, increased by \$3,681 million (11.8%); compared to the \$1,793 million (6.1%) increase in 1984-85. This higher rate of growth was due to the elimination of the federal tax reduction, the restriction of the indexation of personal income tax exemptions and tax brackets, the imposition of surtaxes on basic federal tax over \$5,000, as well as personal income growth, in 1985-86, of 7.5%, relative to 1984-85.

General sales tax revenue was up \$1,653 million (21.4%) in 1985-86 because of a one percentage point rate increase and a broadening of the sales tax base to include such items as soft drinks, confectionery products, pet foods, non-prescription drugs, and health and energy conservation goods.

Tobacco tax revenues rose by \$591 million (50.4%) to \$1,763 million which reflected the increase of one cent per cigarette in the specific excise tax on cigarettes which became effective in May 1985.

Revenues from unemployment insurance contributions rose by \$1,166 million (15.3%) compared with the rise of \$298 million (4.1%) in 1984-85. The acceleration in 1985-86 was due to a rise in contribution rates and an increase in the number of contributors.

Revenue from the petroleum compensation charge decreased by \$1,114 million (50.5%) while petroleum gas and gas revenue tax receipts dropped by \$566 million, both due to the gradual phasing out of energy-related taxes as stipulated under the Western Energy Accord.

Corporate income taxes fell \$170 million, due to lower corporate profits and the use by corporate

taxpayers of various tax credits and loss carryover provisions.

22.1.2 Gross general expenditure

Gross general expenditure (Table 22.3), for the fiscal year 1985-86, increased by only \$3,049 million (2.6%) compared to the \$12,415 million (11.8%) increase in 1984-85. The increase was due mainly to growth in outlays on debt charges and the functions: social security, protection of persons and property, and transfers to enterprises. The growth was partially offset by significant declines in expenditures on the functions: resource conservation and industrial development, housing, and transportation and communications.

Debt charges increased \$3,498 million (17.1%) to \$23,993 million in 1985-86, reflecting the increase in unmatured debt outstanding during the year.

Expenditures on the social security function rose by \$1,897 million (5.1%) due to increased spending under the Old Age Security program, which was up \$1,107 million, and the Canada Pension Plan, which was up \$685 million.

Protection of persons and property rose by \$1,022 million (9.4%). The two main factors contributing to the increase were a payment of \$791 million to the uninsured depositors of the Canadian Commercial and Northland Banks and higher defence spending of \$120 million, reflecting Canada's commitment to its NATO allies. The increase in defence spending was partially offset due to the deferral of some capital spending to 1986-87.

Larger transfers to enterprises, up \$494 million in 1985-86, were attributable mainly to the \$1,188 million in surpluses contributed to Canadair Financial Corporation, through the assumption of long term debt by the Government of Canada. By comparison, Canadair Financial Corporation received \$300 million in 1984-85. This large increase in transfers to Canadair Financial Corporation was offset by lesser payments to other enterprises.

Expenditure on the resource conservation and industrial development function declined by \$2,852 million (26.1%), in 1985-86. The oil and gas sub-function was mainly responsible for this substantial drop as the petroleum compensation program and the petroleum incentive program were phased out in compliance with the Western Energy Accord.

Decreased spending on the housing function, down \$607 million (28.9%), was largely due to the phasing out of the mortgage protection program managed by Canada Mortgage and Housing Corporation (CMHC) as well as lower urban renewal payments and the termination of home insulation grants.

The main factors contributing to the decline in the transportation and communications function, down \$277 million (7.4%), were smaller payments to the Canadian Wheat Board for the purchase of hopper cars as well as lower subsidy payments under the Western Grain Transportation Act and the Railway Act.

22.1.3 Consolidated government finance

Data on each level of government — federal, provincial and local — constitute the basis of the intergovernment consolidation which is presented for the years 1981 to 1983 in Table 22.1. The consolidation process integrates the separate levels of government to reveal the fiscal framework of the public sector viewed as an economic unit. As a result, the numerous intergovernmental transactions, either as revenue or as expenditure, are eliminated in order to obtain a measure of the collective impact of all government transactions upon the rest of the economy, in terms of services provided and taxes collected.

22.1.4 General accounts

Tables 22.2 to 22.6 and 22.18 present financial statistics of the federal government prepared in accordance with the concepts published in *The Canadian system of government financial management statistics* (Statistics Canada 68-507). Financial statistics in Tables 22.7 and 22.13 are extracted directly from the *Public accounts of Canada*.

Table 22.4 provides details of the assets and liabilities of the federal government as at March 31, 1984 to 1987. Table 22.5 analyzes gross bonded debt according to average interest rate, and place of payment as at March 31, 1984 to 1987.

In addition to direct gross bonded debt, the federal government has assumed certain contingent liabilities. The major categories of this indirect or contingent debt are the guarantee of insured loans under the National Housing Act and the guaranteed bonds and debentures of Canadian National Railways. The remainder consists chiefly of guarantees of loans made by chartered banks to the Canadian Wheat Board, to farmers and to university students and of guarantees under the Export Development Act. Table 22.6 provides data on the contingent liabilities of the government as at March 31, 1984 to 1987.

22.2 Federal financial operations and control

22.2.1 Financial administration

The financial affairs of the federal government are administered under the basic principle set out

in the Constitution Act, 1867, that no tax shall be imposed and no money spent without the authority of Parliament and that expenditures shall be made only for the purposes, and subject to such limitations, terms and conditions as are authorized by Parliament.

The government introduces all money bills and exercises financial control through a budgetary system based on the principle that all the financial needs of the government for each fiscal year ending March 31 should be considered at one time so that both the current and prospective conditions of the public treasury may be clearly evident.

Estimates and appropriations. Treasury Board, whose Secretariat, together with the office of the Comptroller General, constitute a separate department of government under the President of the Treasury Board, co-ordinates the estimates process.

Under a policy and expenditure management system, total government outlays are divided into eight functional categories or envelopes, and planned levels for spending are established over a multi-year horizon. Envelopes consist of the estimated cost of existing programs (A-base projections), and either a positive "policy reserve", or a "negative reserve" if the envelope has been set at a level which requires net reductions in existing programs. Responsibility for program decisions and the allocation of funds within envelopes is delegated to policy committees of Cabinet. Final approvals rest with the priorities and planning committee of Cabinet. As well as allocating funds from any policy reserve established when the envelope is initially set, policy committees may add to this reserve through reductions in existing programs. Hence, the system encourages policy committees and departments to review their programs in order to provide funds for new initiatives.

Each year, departments and agencies submit a Multi-Year Operational Plan (MYOP) to the Treasury Board. This document provides detailed information on proposed spending over the planning period for their currently authorized levels of activity (the A-base projections).

Based on the Multi-Year Operational Plan, the Treasury Board Secretariat prepares recommendations for the budgetary and non-budgetary allocations to each program for Treasury Board and Cabinet review and approval. Departments are advised of the allocations approved by Cabinet. Departments also develop separate detailed estimates for their resource requirements for the first or upcoming year of the MYOP. Following review by Treasury Board and approval by

Cabinet, the MYOP levels for all planning years are updated and the estimates for the upcoming year are tabled in Parliament in February.

The new year main estimates are referred to committees of the House of Commons by March 1 of the expiring fiscal year. The committees must report back to the House not later than May 31. Supplementary estimates are referred to standing committees immediately after they are tabled and reporting dates are stipulated in the standing order of the House.

There are three supply periods that end December 10, March 26 and June 30. The first supplementary estimates for a year are usually dealt with in the December period and the final supplementary estimates in the March period. In addition, interim supply (consisting of 3/12ths for all voted items in main estimates and extra 12ths for some voted items) is dealt with in the March period. In the June period, the House is asked to provide full supply on main estimates. In each supply period, a number of days are allotted to the business of supply. Opposition motions have precedence over all government supply motions on allotted days, and opportunities to put forward votable motions are provided. On the last allotted day in each period, the appropriation acts, related to estimates, then before the House of Commons must be voted on. These acts authorize payments out of the consolidated revenue fund of the amounts included in the estimates, whether main or supplementary, subject to the conditions stated in them.

Many amounts, included in the estimates, are for information approved by Parliament in other acts and do not require a vote on an annual basis.

The budget. The Finance Minister usually presents a budget speech in the House of Commons some time before the main estimates are introduced. The budget speech reviews the state of the national economy and the financial operations of the government in the previous fiscal year and gives a forecast of the probable financial requirements for the year ahead, taking into account the main estimates and allowing for supplementary estimates. At the close of his address, the Minister tables the formal notices of ways and means motions for any changes in the existing tax rates or rules and customs tariff which, in accordance with parliamentary procedure, must precede the introduction of any money bills. These resolutions give notice of the amendments which the government intends to ask Parliament to make in the taxation statutes. However, if a change is proposed in a commodity tax, such as a sales tax or excise duty on a particular item, it is usually

effective immediately; the legislation, when passed, is retroactive to the date of the speech.

The budget speech supports a motion that the House approve in general a budgetary policy of the government; debate on this motion may take six sitting days. Once it is passed the way is clear for consideration of the budget resolutions. When these have been approved, the tax bills are introduced and dealt with in the same manner as all other government financial legislation.

Revenues. Administrative procedures for accounting for and controlling revenues and expenditures are, for the most part, contained in the Financial Administration Act.

The basic requirement for revenues is that all public money be paid into the consolidated revenue fund, which is the aggregate of all public money on deposit to the credit of the Receiver General for Canada, who is the Supply and Services Minister. Treasury Board has prescribed detailed regulations for the receipt and deposit of this money.

The Bank of Canada, the chartered banks, and other financial institutions are the custodians of public money. Balances are apportioned among them by the Department of Finance. The division of funds between the Bank of Canada and the various financial institutions takes into account the immediate cash requirements of the government and consideration of monetary policy.

The Finance Minister may purchase and hold securities of, or guaranteed by, Canada and pay for them out of the consolidated revenue fund or may sell such securities and pay the proceeds into the fund. Thus, if cash balances in the fund exceed immediate requirements, they may be invested in interest-earning assets. In addition, the Finance Minister has established a purchase fund to assist in the orderly retirement of the public debt.

Treasury Board has central control over the budgets of departments and over financial administrative matters generally, principally during the annual consideration of departmental long-range plans and of the estimates. The Board also has the right to maintain continuous control over specific expenditures, determined by the Board, to ensure that activities and commitments for the future are held within approved policies, and that the government is informed of and approves any major development of policy or significant transaction that might give rise to public or parliamentary criticism.

To ensure enforcement of the expenditure decisions of Parliament, the government and Ministers, the Financial Administration Act

provides that no payment shall be made out of the consolidated revenue fund without the authority of Parliament and no charge shall be made against an appropriation except on the requisition of the appropriate Minister or a person authorized by him or her in writing. These requisitions, which must meet certain standards prescribed by Treasury Board regulation, are presented to the Receiver General, who makes the payment.

At the beginning of each fiscal year, or whenever Treasury Board so directs, votes included in estimates are divided into allotments. Once approved, they cannot be varied or amended without the consent of the Board. To avoid over-expenditures, commitments due to be paid within a fiscal year must be recorded and controlled by the departments concerned. Commitments made under contract that will fall due in succeeding years are also tracked, since the government must be prepared in the future to ask Parliament for appropriations to cover them. Any unspent amounts in the annual appropriations, after amounts owing for work performed, goods received or services rendered prior to the end of the fiscal year, March 31, have been recorded, lapse at the end of the fiscal year.

Public debt. In addition to collecting and disbursing public money, the government receives and pays out substantial sums in connection with its public debt operations. The Finance Minister is authorized to borrow money by the issue and sale of securities at whatever rate of interest and under whatever terms and conditions the Governor-in-Council approves. Although new borrowings require specific authority of Parliament, the Financial Administration Act authorizes the Governor-in-Council to approve borrowings, as required, to redeem maturing or called securities. To ensure that the consolidated revenue fund will be sufficient to meet lawfully authorized disbursements, the Governor-in-Council may also approve the temporary borrowing of necessary sums for periods not exceeding six months. The Bank of Canada acts as the fiscal agent of the government in the management of the public debt.

Accounts and financial statements. Under the Financial Administration Act, Treasury Board may prescribe the manner and form in which the accounts of Canada and the accounts of individual departments shall be kept.

Annually, on or before December 31 or, if Parliament is not then sitting, within any of the first 15 days after Parliament resumes, the Public Accounts, prepared by the Receiver General, in accordance with the accounting policies and other instructions emanating from the office of the

Comptroller General, are laid before the Commons by the President of the Treasury Board.

The Public Accounts contain a summary of the financial transactions of the fiscal year ended the previous March 31 and audited statements of revenues and expenditures, assets and direct and contingent liabilities, together with other accounts and information required to show the financial position of Canada.

The statement of assets and liabilities is designed to disclose the net debt, which is determined by offsetting against the gross liabilities only those assets regarded as readily realizable or interest- or revenue-producing. Fixed capital assets, such as government buildings and public works, are charged to budgetary expenditures at the time of acquisition or construction and are shown on the statement of assets and liabilities at a nominal value of \$1.00. Monthly financial statements are also published in the *Canada Gazette*.

22.2.2 Sources of revenue

Individual and corporation taxes. As shown in Table 22.2, income taxes are the greatest source of gross general revenue for the federal government. Approximately 75% of individual taxpayers are wage- or salary-earners who have almost the whole of their tax liability deducted at the source by their employers. All other taxpayers are required to pay most of their estimated tax during the taxation year. Thus, the greater part of the tax is collected during the same year in which the related income is earned and only a limited residue remains to be collected when returns are filed. The collections for a given fiscal year include employer remittances of tax deductions, Canada Pension Plan contributions, unemployment insurance premiums and instalments, embracing portions of two or more taxation years, and year-end payments; they cannot therefore be closely related to the statistics for a given taxation year. As little information about a taxpayer is received when the payment is made and as a single cheque from one employer may frequently cover the tax payment of hundreds of employees, the payments cannot be statistically related to taxpayers by occupation or income. Descriptive classifications of taxpayers are available only from tax returns, but collection statistics, if interpreted with the current tax structure and the above factors in mind, indicate the trend of income in advance of final compilation of statistics. The statistics given in Table 22.7 pertain to revenue collections for fiscal years ended March 31, 1980-87.

Individual income tax. The federal government has adopted a tax system in which taxpayers

volunteer the facts about their incomes and calculate the taxes they must pay. Every individual resident in Canada is liable for the payment of income tax on all income regardless of where it is earned. Generally, a non-resident is liable for tax only on income from sources in Canada. Residence is the place where a person resides or where a person maintains a dwelling ready at all times for that person's use. There are also statutory extensions of the meaning of resident to include a person who has been in Canada for an aggregate period of 183 days in a taxation year, a person who was during the year a member of the armed forces of Canada, an officer or servant of Canada or of any one of its provinces, or the spouse or dependent child of any such person. The extended meaning of resident also includes employees who go from Canada to work under certain international development assistance programs.

Canadian tax law uses the concepts of income and taxable income. Income means income from all sources inside or outside Canada and includes income for the year from businesses, property, offices and employment. It also includes two-thirds of any capital gains.

In computing income, an individual must include benefits from employment, fees, commissions, dividends, annuities, pension benefits, interest, alimony and maintenance payments. Also included are unemployment insurance benefits, family allowance payments, scholarships in excess of \$500, benefits under a disability insurance plan to which the individual's employer contributes and other miscellaneous items of income. A number of items are expressly excluded from income, including certain war service disability pensions, welfare and other social assistance payments, compensation for an injury or death under provincial worker compensation acts, family income security payments and the guaranteed income supplement which is a payment made to individuals over age 65 who have little or no income, other than their old age pension.

Generally, a capital gain or loss arises whenever there is a disposition or deemed disposition of capital property. The taxable portion of a capital gain and the allowable portion of a capital loss is two-thirds. If a person's taxable capital gains exceed allowable capital losses for a year, the difference is included in income. If allowable capital losses exceed taxable capital gains for a year, the difference represents the individual's net capital loss for the year. Up to \$2,000 of any net capital losses that were incurred before May 23, 1985 may be deducted from other income. Otherwise, unapplied net capital losses may only

be used to reduce taxable capital gains of other years. Two-thirds of losses on certain small business shares can be written off against other income without limit. The sale of personal property at a price not exceeding \$1,000, and the sale of a home that has been used only as the owner's principal residence do not give rise to a capital gain or loss. Other gains or losses, such as those resulting from a lottery or gambling, are not subject to these capital gains or losses rules.

Certain amounts are deductible in computing income. Detailed information is available from Revenue Canada, Taxation.

Individual income tax statistics collected by Revenue Canada, Taxation are presented in Tables 22.7 – 22.10 on a calendar-year basis and are compiled from a sample of all returns received. Taxpayers and amounts of income and tax are shown for selected cities and by occupational class and income classes.

Corporation income tax. The Income Tax Act levies a tax upon the worldwide income of corporations resident in Canada and upon the income attributable to operations in Canada of non-resident corporations carrying on business in Canada. Half of capital gains must be included in income. In computing income, corporations may deduct operating expenses such as wages and salaries, costs of goods sold, municipal real estate taxes, reserves for doubtful debts, bad debts and interest on borrowed money.

Statistics on the taxation of corporate income showing a reconciliation of income taxes to taxable income and book profits are published on an industry basis in *Corporation taxation statistics* (Statistics Canada 61-208). Data are summarized for nine industrial divisions in Table 22.11. Taxable income data are also available on a provincial basis, as shown in Table 22.12.

Excise taxes. A drawback of 99% of the duty may be granted when domestic spirits, testing not less than 85% absolute ethyl alcohol, by volume, are delivered in limited quantities for medicinal or research purposes to universities, scientific or research laboratories, public hospitals or health institutions in receipt of federal and provincial government aid.

The Excise Tax Act levies a general sales tax and special excise taxes. These taxes are levied on goods imported into Canada as well as on goods produced in Canada. They are not levied on goods exported.

Some goods are exempt from sales tax. Drugs, electricity, fuels for lighting or heating, all clothing and footwear, foodstuffs and a comprehensive

list of energy conservation, transportation and construction equipment are exempt. In addition, articles and materials purchased by public hospitals and certain welfare institutions are not subject to sales tax. The products of farms, forests, mines and fisheries are, to a large extent, exempt as is most equipment used in farming and fishing. Machinery and equipment used directly in production, materials consumed or expended in production and equipment acquired by manufacturers or producers to prevent or reduce pollution to water, soil or air from their manufacturing operations are all exempt. A number of items are exempt when purchased by municipalities. These and other exemptions are set forth in the Excise Tax Act.

The Excise Tax Act also imposes a number of special excise taxes in addition to the sales tax. Where these are ad valorem taxes, they are levied on the same price or duty-paid value as the general sales tax. Those levied as at December 31, 1986 and 1987 are given in Table 22.14.

Excise duties. The excise act levies taxes (referred to as excise duties) upon alcohol, alcoholic beverages other than wines and tobacco products. These duties are not levied on imports but the customs tariff applies special duties to these products equivalent to the excise duties levied on the products manufactured in Canada. Exported goods are not subject to excise duties.

The duties on spirits are on a litre of absolute ethyl alcohol basis. They do not apply to denatured alcohol intended for use in the arts and industries, or for fuel, light or power, or any mechanical purpose. Excise duties are imposed on tobacco, cigars and cigarettes in addition to the special excise taxes.

Customs duties. Many goods imported into Canada are subject to customs duties at various rates. Customs duties once were the chief source of revenue for the federal government but have declined in importance, now providing less than 5% of the total. Apart from its revenue aspects, however, the tariff occupies a place as an instrument of economic policy.

The customs tariff provides for five different tariff treatments — general preferential, British preferential, most-favoured-nation, general, and a special rate for certain goods imported from Australia, New Zealand and the Commonwealth Caribbean countries. For additional information see Chapter 21, External relations, trade and defence.

Other sources of gross general revenue for 1982-86 are indicated in Table 22.2.

In cases where customs duties are paid, there are provisions for the drawback of duties on imported goods and materials exported from Canada, either after being used in the manufacture of products in Canada or without having been used or altered in any way in Canada, where certain conditions have been met.

Under the Canada-US Free Trade Agreement drawback programs will continue unchanged until January 1, 1994. At that time the drawback of duties, with certain exceptions, will no longer be allowed on goods exported to the United States. There will be, however, no change with respect to export to other countries.

22.2.3 The Auditor General

The Auditor General of Canada is an official, independent of the Government, who examines the government's accounts and its management of public resources and reports his findings to Parliament or others responsible.

The Auditor General conducts audits and examinations of governments departments, agencies and some of the government-owned corporations: to verify whether government spending has been properly authorized; to assess whether the government's accounting policies are appropriate; to attest to the financial statements of various government or government-owned organizations; to identify barriers to economical, efficient and effective management of public resources, financial, human and physical; to identify cases of spending undertaken without due regard to economy or efficiency; and to report whether the government properly evaluates the effectiveness of its programs.

22.3 Federal-provincial fiscal relations

Fiscal relations between the federal, provincial and territorial governments are governed either by an act of Parliament or by formal agreements. The Constitution Act, 1867, the Public Utilities Income Tax Transfer Act, and the Federal-Provincial Fiscal Arrangements and Established Programs Financing Act, 1977 were the most important legislative measures under which fiscal transfers have been paid by the federal government to the provinces. All of the federal-provincial financial arrangements are now included in an Act to amend the Federal-Provincial Fiscal Arrangements and Established Programs Financing Act, 1977, popularly known as the Federal-Provincial Fiscal Arrangements and Federal Health and Education Contributions Act, 1977, passed on June 7, 1984.

22.3.1 Fiscal arrangements

This is a term that covers a variety of federal-provincial financial arrangements. Many have existed since Confederation in 1867. Included are various federal-provincial transfers and tax collection agreements.

Federal-provincial transfers include two basic types: general purpose transfers and specific purpose transfers.

General purpose transfers. Early general purpose transfers were basically subsidies paid to the provinces under the Constitution Act, 1867 (formerly called the BNA Act). These were per capita payments to ensure that the provinces had sufficient resources to meet their general responsibilities and remain solvent.

Contemporary general purpose transfers are basically equalization payments. The equalization program was begun in 1957 and has been based on a formula negotiated every five years and designed to reduce disparity of fiscal capacity between "have" and "have-not" provinces. From its general revenue, the federal government compensates any province whose per capita revenue is below the national average because of a relative deficiency in the province's tax base. Thus, equalization payments are intended to ensure that all citizens are provided with comparable standards of public services throughout the country.

General purpose transfers now amount to more than \$6 billion annually, with about 80% composed of equalization grants.

Since the beginning of this program in 1957, seven provinces have received equalization payments: Newfoundland, Prince Edward Island, Nova Scotia, New Brunswick, Quebec, Manitoba and Saskatchewan.

Specific purpose transfers. Early specific purpose transfers for programs cost-shared by the federal and provincial governments began in 1912. Through these transfers, the federal government contributed to spending priorities in provincial constitutional jurisdictions. Usually these were specific in purpose, such as for agricultural training, highway construction or disease control, and were of fixed duration and fixed total value.

Contemporary specific purpose transfers are mainly for large-scale social programs which lie within provincial constitutional jurisdiction but are deemed to be of national importance, of indefinite duration and with high cost, such as health care, social welfare and education.

Tax collection agreements. Tax collection agreements originated at the end of World War II. The

first agreements were implemented for the years 1947 to 1952, pursuant to the Dominion-Provincial Tax Rental Agreement Act. The 1947 agreements started the series of five-year federal-provincial arrangements, each one modifying and broadening the terms and content of the preceding one. For instance, with the adoption in 1957 of tax-sharing arrangements, replacing the tax rental agreements in force since 1942, the federal government initiated an income tax abatement system in favour of the provinces. The 1957 formula, however, was modified by the 1962 agreements so that the provinces could establish their own income tax rates which could be higher or lower than the federal abatement. The federal government undertook to collect for the provinces, with its own income tax, provincial personal and corporation income taxes provided that provincial tax systems were uniform with the federal system. All provinces except Quebec signed the agreements for personal income tax, and all provinces except Quebec and Ontario for corporation income tax. This collection is made at no cost to the provinces except for a small fee for administration of special tax rebates implemented by some provinces.

Generally these agreements are accompanied by revenue guarantees, to prevent a precipitous fall in provincial revenues and hence to strengthen provincial credit ratings.

22.4 Tax rates

Taxes are imposed in Canada by the three levels of government. The federal government has the right to raise money by any mode or system of taxation while provincial legislatures are restricted to direct taxation within the province. Municipalities derive their incorporation with its associated powers, fiscal and otherwise, provincially and are thus also limited to direct taxation.

A direct tax is generally recognized as one demanded from the very person who is individually required to pay it. This concept has limited the provincial governments to the imposition of income tax, retail sales tax, succession duties and an assortment of other direct levies. In turn, municipalities acting under provincial legislation tax real estate, water consumption and places of business. The federal government levies taxes on income, excise taxes, excise and customs duties, and a sales tax.

Provincial taxes and fees. According to the Constitution Act, 1867, a government cannot levy taxes on another government. However, due to the growing complexities of the economic and commercial transactions of governments, the

constitutional provisions for intergovernmental taxation have become increasingly difficult to observe, particularly when government purchases are made through suppliers in the private sector such as retailers and building contractors.

To remove, or at least minimize, the uncertainties and difficulties surrounding the paying of consumption taxes among governments, a set of indexes based on criteria applied to various types of expenditure was devised and is incorporated in the 1977 federal-provincial fiscal arrangements. Under this act, the federal government could enter into reciprocal taxation agreements with the provincial governments as of October 1977. Such agreements were scheduled to run until March 31, 1981, with provisions for renewal. The terms of these agreements also apply to purchases by Crown corporations listed in parts of the Financial Administration Act and the Federal-Provincial Fiscal Arrangements and Established Programs Financing Act, 1977. Currently, eight provinces have agreed to enter into these reciprocal taxation agreements: Newfoundland, Prince Edward Island, Nova Scotia, New Brunswick, Quebec, Ontario, Manitoba and British Columbia.

22.5 Provincial government finance

Because of variation from province to province in administrative structure and, to a lesser extent, in accounting and reporting practices, adjustments are made to financial data reported in public accounts to produce statistics comparable between different provinces and with those for the other levels of government. In 1972, the concepts and classifications of the national system of government financial statistics were redefined (see *The system of government financial management statistics*, Statistics Canada 68-507). Financial statistics for the years 1971 onward are compiled in accordance with these revisions.

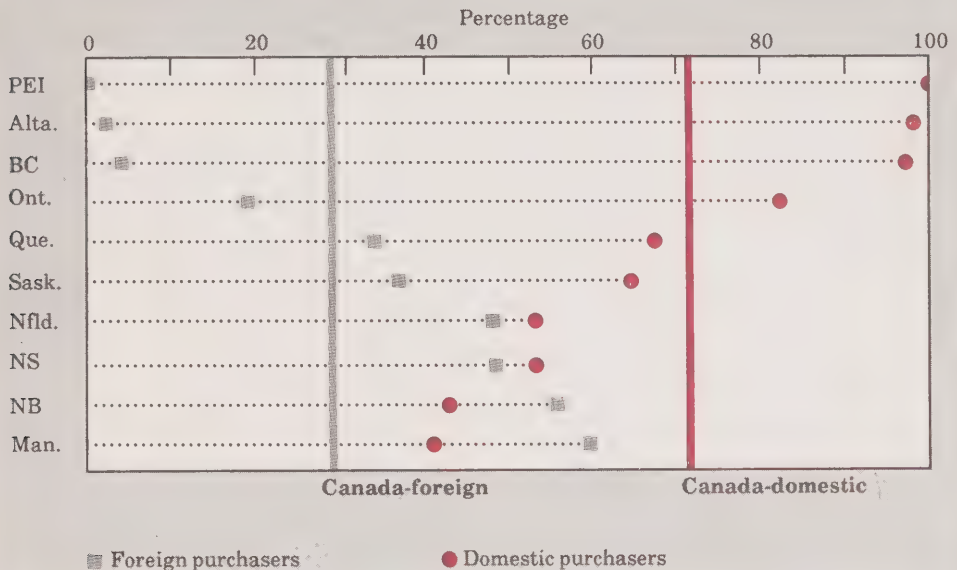
Gross general revenue is given in Table 22.19 and gross general expenditure in Table 22.20, liabilities in Table 22.15, and liabilities of other governments and entities guaranteed by provincial and territorial governments in Table 22.16. More information on outstanding provincial bonds and debentures is in Table 22.17.

22.5.1 Provincial taxes

All of Canada's provinces levy a wide variety of taxes, fees, licences and other forms of imposition. Among such levies, a relatively small number account for about 75% of total provincial revenue from own sources. Only the more important levies are briefly described here. Table 22.19

Chart 22.1

Bonds and debentures issued by provincial governments, by market, 1987



indicates the amount of revenue derived by provinces and territories from such sources.

Personal income tax. All provincial governments levy a tax on the income of individuals who reside within their boundaries and on the income earned by non-residents from sources within those boundaries. Rates of provincial individual income tax are expressed as percentages of basic federal tax, with the exception of Quebec which has its own system. The basic federal tax on which provinces apply their rates is the federal tax after the dividend tax credit but before any foreign tax credit and special federal tax reductions.

Corporation income tax. All provinces levy a tax on the taxable income of corporations. In provinces other than Quebec, Ontario and Alberta, the provincial corporation income tax is imposed on the same basis as that established for federal corporation income tax purposes, and is collected by the federal government under tax collection agreements. In Quebec, Ontario and Alberta, the determination of corporation taxable income follows closely, but not exactly, the federal rules and each collects its own levy. Corporate taxable income earned in a province is eligible for the 10% federal abatement to compensate corporations for provincial taxes payable.

Provincial sales tax. All provinces except Alberta tax at a retail level a wide range of consumer goods and services purchased in or brought into the province. The tax is payable on the selling price of tangible personal property, defined to include certain services, purchased for own consumption or use and not for resale. Each provincial act, however, specifies a number of goods that are exempt. Exemptions include items related mainly to necessities of life and to material used in the farming or fishing industries.

Gasoline and diesel fuel oil taxes. Each province and each territory imposes a tax on the purchase of gasoline and diesel fuel by motorists and truckers and other fuel intended to generate motive power. In Alberta and Saskatchewan, the taxation base is restricted on fuel used in railway locomotives and aircraft. A number of activities such as farming, fishing, mining or logging are either exempt from motive fuel taxation or are taxed at a preferred rate.

Tax on mining operations. With the exception of Prince Edward Island, all provinces levy some form of tax on profits of mining operations. The tax rates vary considerably depending on the product being mined, and on the size and nature of the profits being taxed.

In addition to taxes on profits of mining operations, all provinces have provisions which enable them to receive royalties from the extraction of minerals including oil and gas.

Motor vehicle licences and fees. Each province levies a fee on the compulsory registration of a motor vehicle whereupon the vehicle is issued with licence plates. The fees vary from province to province and, in the case of passenger cars, may be assessed on the weight of the vehicle, the wheel base, the number of cylinders of the engine or at a flat rate for specified regions within a province or territory. The fees for commercial motor vehicles and trailers are based on the gross or curb weight for which the vehicle is registered, that is, the weight of the vehicle empty plus the load it is permitted to carry. Every operator or driver of a motor vehicle is required to register periodically and pay a fee for a driver's licence.

Land transfer taxes. Ontario levies a tax based on the price at which ownership of land is transferred and a tax on the increase in value on the sale of designated land (all real property except Canadian resource property). New Brunswick levies a real property transfer tax on the value of real property transactions. Quebec levies a land speculation tax on the value of immovable property transferred to non-residents for purposes other than development. Municipalities may levy duties on immovable property transferred. In Alberta, a fee is charged proportional to the registered value of land. British Columbia and Saskatchewan do not have a land transfer tax but have an equivalent in land title fee which is based on land value.

22.6 Local government finance

Details for revenue and expenditure are given in Tables 22.21 and 22.22, with data on direct debt included in Table 22.23.

22.6.1 Local taxes

For purposes of financial statistics, local government is comprised of three principal categories — municipalities, local school authorities and special purpose authorities. Consequently, local taxes are levied by either one of these entities or

by all of them depending upon the taxing powers granted to each of them by their respective provincial legislatures. For more than a century, the main source of revenue of local governments has been related to real properties within their jurisdictions. Various taxes have been gradually implemented to supplement the real property tax from which, however, they still derive the bulk of their revenue.

Local property tax. Municipalities throughout Canada levy taxes on real properties situated within their boundaries. Generally speaking, they set the rates and collect the proceeds of their own levy and levies made on behalf of other local governments in their area, such as local school authorities. However, in most of Quebec outside the Montreal area and in the unorganized parts of Ontario, school boards levy and collect their own real property taxes directly.

The real property tax rate is generally expressed in mills (rate per \$1,000 of the base) or as a rate per \$100 of the base. This base is the assessed value of each property. Methods of determining assessed value vary widely not only among the provinces but also among municipalities within a province. However, for taxation purposes, assessed value is considered to be a percentage of actual market value.

Business taxes. Among other taxes that municipalities levy, business taxes rank next to the real property tax as a producer of municipal revenue. Such taxes are levied directly on the tenant or the operator of a business. The bases on which business taxes are levied are very diversified among the provinces. The most common in use are: a percentage of the assessed value of real property, the value of stock-in-trade, the assessed annual rental value of immovables and the area of premises occupied for business purposes.

Water charges. In general, municipalities recoup all, or part, of the cost of supplying water through special charges for water consumption. Such charges take various forms such as a charge based on the actual consumption of water, or a water tax based on the rental value of the property occupied.

Sources

- 22.1 – 22.1.4 Public Institutions Division, Statistics Canada.
- 22.2.1 Communications Division, Treasury Board Secretariat.
- 22.2.2 Revenue Canada, Taxation; Industrial Organization and Finance Division, Statistics Canada.
- 22.2.3 Public Affairs, Auditor General of Canada.
- 22.3, 22.3.1 Public Institutions Division, Statistics Canada.
- 22.4 Sales and Excise Tax Division, Department of Finance.
- 22.5 – 22.6.1 Public Institutions Division, Statistics Canada.

FOR FURTHER READING

Selected publications from Statistics Canada

- Consolidated Government Finance, annual. 68-202
- Local Government Finance, Revenue and Expenditure, Assets and Liabilities, annual. 68-204
- Provincial Government Finance, Revenue and Expenditure, annual. 68-207
- Provincial Government Finance, Assets, Liabilities, Source and Application of Funds, annual. 68-209
- Federal Government Finance, Revenue, Expenditure, Assets and Liabilities, annual. 68-211
- The System of Government Financial Management Statistics, 158 p., 1984. 68-507
- Federal Government Enterprise Finance, Income and Expenditure, Assets, Liabilities and Net Worth, annual. 61-203
- Provincial Government Enterprise Finance, Income and Expenditure, Assets, Liabilities and Net Worth, annual. 61-204

More information about these publications is available from Statistics Canada. See Appendix F for a complete list of Statistics Canada offices.

TABLES

.. not available
 ... not appropriate or not applicable
 — nil or zero
 -- too small to be expressed

e estimate
 p preliminary
 r revised
 certain tables may not add due to rounding

22.1 Consolidated government revenue and expenditure, after elimination of intergovernment transfers, fiscal years ended nearest December 31 (million dollars)

Source or function	1981 ^r	1982 ^r	1983
Consolidated government revenue by source			
Income taxes			
Personal	41,541	46,087	48,097
Corporation	11,795	9,488	10,283
On payments to non-residents	1,018	998	908
Total, income taxes	54,354	56,573	59,288
Property and related taxes	11,094	12,225	14,043
Consumption taxes			
General sales	13,226	13,628	15,718
Motive fuel	3,030	3,416	3,616
Alcoholic beverages and tobacco	2,603	3,035	3,419
Custom duties	3,439	2,831	3,380
Other	804	829	931
Total, property and related taxes, and consumption taxes	34,196	35,964	41,107
Health and social insurance levies	13,914	14,736	17,936
Miscellaneous taxes	9,597	9,850	7,623
Natural resource revenue	6,838	6,904	7,801
Privileges, licences and permits	2,005	2,106	2,243
Sales of goods and services	7,426	6,400	6,966
Return on investments	11,829	12,323	12,436
Other revenue from own sources	3,180	2,873	2,767
Total, consolidated revenue	143,339	147,729	158,167
Consolidated government expenditure by function			
General services	9,967	11,167	11,849
Protection of persons and property	11,999	13,680	15,251
Transportation and communications	11,549	11,216	11,384
Health	18,801	21,672	24,154
Social services	32,968	41,852	47,072
Education	20,846	23,196	24,979
Resource conservation and industrial development	12,596	14,686	14,102
Environment	3,409	3,605	3,730
Recreation and culture	3,396	3,905	4,134
Foreign affairs and international assistance	1,261	1,543	1,743
Debt charges	19,819	22,933	24,712
Other expenditures	7,852	10,623	11,396
Total, consolidated expenditure	154,463	180,078	194,506
Consolidated government revenue less consolidated government expenditure	-11,124	-32,349	-36,339

22.2 Gross general revenue of the federal government, years ended March 31 (million dollars)

Source	1982	1983	1984	1985	1986
Taxes					
Income taxes					
Personal	25,232	27,376	29,290	31,083	34,764
Corporation	8,118	7,139	7,286	9,380	9,210
On certain payments to non-residents	1,018	998	909	1,021	1,054
Consumption taxes					
General taxes	6,185	5,894	6,660	7,729	9,382
Motive fuel	436	408	386	405	770
Alcoholic beverages	773	829	894	979	876
Tobacco	865	1,036	1,076	1,172	1,763
Racetrack betting	10	10	13	13	13
Air transportation	189	198	208	226	306
Custom duties	3,439	2,831	3,380	3,796	3,975
Other	1,891 ^r	2,232 ^r	1,450 ^r	979 ^r	389

22.2 Gross general revenue of the federal government, years ended March 31 (million dollars) (concluded)

Source	1982	1983	1984	1985	1986
Health and social insurance levies					
Unemployment insurance contributions	4,787	4,939	7,319	7,617	8,783
Universal pension plan levies ¹	3,202	3,363	3,623	3,778	4,384
Miscellaneous taxes					
Taxes on insurance premiums	1	1	1	1	1
Oil export charges	963	625	346	676	327
Petroleum levy	3,792	—	—	—	—
Other	361 [†]	494 [†]	449 [†]	461 [†]	437
Total, taxes	61,242 [†]	58,373 [†]	63,290 [†]	69,316 [†]	76,434
Natural resources	1,390 [†]	5,057 [†]	3,894 [†]	4,810 [†]	3,172
Privileges, licences and permits	77	94	102	114	153
Sales of goods and services ²	3,603	2,226	2,265	2,246	2,186
Return on investments	5,084	5,097	5,394	5,457	6,248
Contributions to government-owned pension plans	43 [†]	50 [†]	56 [†]	58 [†]	61
Bullion and coinage	70	54	56	70	144
Fines and penalties	41	40	49	47	45
Miscellaneous	937	932	752	734	901
Total, gross general revenue ³	72,487 [†]	71,923 [†]	75,858 [†]	82,852 [†]	89,344

¹ Canada Pension Plan.

² Includes postal receipts in 1982; excludes them in 1983, 1984, 1985 and 1986.

³ 1982 to 1985 data have been revised to treat government-owned employee pension plans as trusted.

22.3 Gross general expenditure of the federal government, years ended March 31 (million dollars)

Function	1982	1983	1984	1985	1986
General services	4,080 [†]	4,145 [†]	4,620 [†]	5,006 [†]	5,155
Protection of persons and property ¹	7,495	8,645	9,866	10,854	11,876
Transportation and communications ²	4,160	2,818	3,190	3,734	3,457
Health					
Hospital care	2,668	2,434	3,459	5,357	5,333
Other	2,073	2,186	2,738	1,703	1,801
Sub-total, health	4,741	4,620	6,197	7,060	7,134
Social services					
Canada Pension Plan	2,485	3,058	3,686	4,257	4,942
Old age security	8,585	9,643	10,406	11,418	12,525
Unemployment insurance	5,560	9,961	10,128	10,371	10,340
Worker compensation	33	40	45	51	34
Family allowances	2,019	2,231	2,327	2,418	2,501
Veterans' benefits	1,124	1,265	1,370	1,441	1,518
Social welfare assistance	2,650	3,222	4,172	4,558	4,573
Other social welfare	823	998	1,091	1,195	1,284
Tax credits and rebates	973	821	2,117	1,616	1,505
Sub-total, social services	24,252	31,239	35,342	37,325	39,222
Education	2,673	2,876	3,565	3,891	3,973
Resource conservation and industrial development ³	8,509	9,677	8,751	10,929	8,077
Environment	350	466	486	491	422
Recreation and culture	621	640	805	903	852
Labour, employment and immigration	882	1,128	1,204	1,364	1,277
Housing	1,086	1,794	1,654	2,098	1,491
Foreign affairs and international assistance	1,261	1,543	1,743	2,040	2,050
Regional planning and development	134	169	224	388	278
Research establishments	1,080	1,120	1,188	1,161	1,072
General purpose transfers to other levels of government	5,309	6,189	6,560	6,830	6,799
Transfers to own enterprises	1,484	2,878	3,206	2,816	3,310
Debt charges	13,628 [†]	15,181 [†]	16,372 [†]	20,495 [†]	23,993
Other	3	2	3	6	2
Total, gross general expenditure ⁴	81,748 [†]	95,130 [†]	104,976 [†]	117,391 [†]	120,440

¹ Includes National Defence.

² Includes the Post Office in 1982; excludes it in 1983, 1984, 1985 and 1986.

³ Includes agriculture, trade and industry, and tourism.

⁴ 1982 to 1985 data have been revised to treat government-owned employee pension plans as trusted.

22.4 Assets and liabilities of the federal government, years ended March 31 (million dollars)

Item	1984	1985	1986	1987
Assets				
Cash on hand or on deposit	9,055	7,944	5,259	6,413
Receivables	761	813	756	458
Loans and advances	30,767	30,763	37,085	32,142
Investments	55,253	57,813	57,084	67,188
Other assets	5,143	6,929	5,888	4,452
Total, assets	100,979	104,262	106,072	110,653
Liabilities				
Bank overdrafts	5,828	6,828 ^r	4,570	3,213
Payables	14,389 ^r	16,832 ^r	16,243	16,607
Loans and advances	1,197	1,232 ^r	1,568	1,861
Bank notes in circulation	12,528	13,727	15,161 [✓]	16,177
Treasury bills	41,700	52,300	61,950	76,950
Canada Savings Bonds	38,204	41,959 ^r	44,245	44,310
Other bonds	59,183	71,578 ^r	87,402	102,090
Other securities	6,298	10,351	11,848	10,415
Deposits	5,208	4,844 ^r	4,688	4,989
Other liabilities	38,087 ^r	41,929 ^r	47,130	51,618
Total, liabilities	222,622^r	261,580^r	294,805	328,230

22.5 Gross bonded debt of the federal government, years ended March 31 (million dollars)

Item	1984	1985 ^r	1986	1987
Bonded debt	97,387	113,537	131,647	146,400
Average interest rate (%)	10.9	11.6	11.0	10.1
Place of payment				
Canada	95,204	111,420	125,757	140,532
United States	1,658	1,770	4,810	4,105
Other countries	525	347	1,079	1,763

22.6 Contingent liabilities of the Government of Canada¹, years ended March 31 (million dollars)

Item	1984	1985	1986	1987
Total explicit guarantees	3,730	4,484	5,025	5,582
Pending and threatened litigation	2,859	3,724	3,850	2,640
Total contingent liabilities	6,589	8,209	8,875	8,222

¹ For more details see the *Public Accounts of Canada*.**22.7 Revenue collected (net of refunds) by Revenue Canada, Taxation, years ended March 31 (million dollars)**

Year	Income tax ¹		Total collections
	Individual ²	Corporation	
1980	27,935	8,512	32,104
1981	33,888	9,538	38,318
1982	41,998	9,317	45,148
1983	46,264	7,594	48,461
1984	50,094	7,964	50,015
1985	53,148	10,047	55,227
1986	59,659	9,983	59,407
1987	68,141	10,588	65,910

¹ Includes transfers to Old Age Security Fund.² Includes non-resident withholding tax and Canada Pension Plan contribution by employers, employees and self-employed persons and unemployment insurance premiums.

22.8 Number of taxpayers, assessed income and income tax payable¹, 1986

Province or territory	Taxpayers No.	Total income assessed \$'000,000	Federal tax payable \$'000,000	Provincial tax payable \$'000,000
Newfoundland	223,230	4,389	475	280
Prince Edward Island	56,460	1,080	109	58
Nova Scotia	389,880	8,919	1,030	573
New Brunswick	306,970	6,540	724	414
Quebec	3,108,580	72,795	8,626	18
Ontario	4,830,160	129,499	17,021	8,296
Manitoba	515,510	11,872	1,346	744
Saskatchewan	445,720	10,524	1,195	653
Alberta	1,171,640	30,546	3,991	1,652
British Columbia	1,425,000	36,464	4,566	2,145
Yukon	11,780	311	41	18
Northwest Territories	19,760	559	78	33
Canada	12,537,620	314,528	39,359	14,920

¹ Taxable returns.**22.9 Taxpayers in selected cities, 1986**

Cities arranged alphabetically and ranked in order of average income ¹	All returns				Taxable returns	
	Rank ²	No. of returns	Average income \$	Total income \$'000	No. of returns	Total tax payable \$'000 ³
Abbotsford, BC	75	24,980	18,444	460,810	18,770	76,471
Anjou, Que.	57	25,190	19,590	493,403	20,390	58,716
Barrie, Ont.	53	37,400	19,786	740,086	29,410	132,618
Beauport, Que.	91	38,170	17,453	666,119	28,920	75,362
Belleville, Ont.	58	31,450	19,443	611,423	23,970	108,301
Brampton, Ont.	25	124,400	22,501	2,799,201	104,110	562,400
Brantford, Ont.	73	54,930	18,465	1,014,380	41,970	175,096
Brossard, Que.	19	35,980	23,099	831,132	29,170	108,596
Burlington, Ont.	5	78,160	25,617	2,002,147	63,800	416,173
Burnaby, BC	41	99,350	20,477	2,034,419	80,670	362,172
Calgary, Alta.	18	435,830	23,450	10,220,411	353,060	2,014,095
Cambridge, Ont.	69	57,050	18,907	1,078,649	44,990	194,455
Charlesbourg, Que.	61	44,470	19,188	853,313	34,660	100,604
Chatham, Ont.	55	32,710	19,750	645,996	25,270	117,395
Chicoutimi, Que.	87	38,010	17,956	682,460	27,680	79,316
Chilliwack, BC	95	28,390	17,358	492,886	20,860	78,424
Coquitlam, BC	31	39,840	21,355	850,882	32,380	161,350
Cornwall, Ont.	99	33,810	16,782	567,431	23,940	98,827
Dartmouth, NS	56	57,480	19,611	1,127,376	44,980	213,373
Delta, BC	21	48,100	23,077	1,110,077	38,720	216,050
Dollard des Ormeaux, Que.	13	25,420	24,136	613,431	20,840	81,016
Douville, Que.	98	26,690	17,119	456,895	20,190	49,172
Edmonton, Alta.	46	387,390	20,311	7,868,282	308,090	1,418,594
Etobicoke, Ont.	15	129,840	24,028	3,119,823	108,080	634,499
Fredericton, NB	70	41,390	18,746	775,975	31,240	140,614
Gatineau, Que.	59	51,950	19,326	1,004,044	41,330	123,302
Gloucester, Ont.	11	58,920	24,389	1,437,063	48,550	291,870
Guelph, Ont.	40	57,360	20,711	1,188,021	45,530	217,361
Halifax, NS	38	79,530	20,942	1,665,622	62,770	317,825
Halton Hills, Ont.	23	25,680	22,756	584,396	20,700	116,439
Hamilton, Ont.	67	210,100	18,981	3,988,097	159,340	709,346
Hull, Que.	74	38,170	18,452	704,415	29,930	83,480
Jonquière, Que.	79	34,850	18,348	639,392	24,890	74,960
Kamloops, BC	62	41,210	19,181	790,501	31,190	142,691
Kelowna, BC	89	51,480	17,572	904,558	38,190	144,175
Kingston, Ont.	44	63,210	20,369	1,287,642	48,580	235,863
Kitchener, Ont.	52	104,480	19,851	2,074,147	83,260	375,238
LaSalle, Que.	81	50,510	18,312	924,986	40,780	105,939
Langley, BC ³	50	32,080	19,981	640,930	24,770	117,068
Laval, Que.	54	189,910	19,773	3,755,105	151,510	454,736
Lethbridge, Alta.	60	40,430	19,255	778,462	31,610	128,635
London, Ont.	39	187,170	20,787	3,890,791	146,510	718,868
Longueuil, Que.	90	81,040	17,480	1,416,511	61,610	163,402
Markham, Ont.	2	94,750	29,360	2,781,904	79,780	623,810
Medicine Hat, Alta.	63	27,920	19,128	534,087	21,880	88,422
Mississauga, Ont.	14	249,120	24,068	5,995,795	208,250	1,254,191
Moncton, NB	92	44,250	17,444	771,938	32,600	136,689
Montreal, Que.	88	706,790	17,865	12,627,209	533,550	1,445,642
Nanaimo, BC	83	32,960	18,277	602,502	24,400	104,209
Nepean, Ont.	7	58,100	25,323	1,471,212	47,940	302,101
Newmarket, Ont.	22	24,650	23,067	568,599	20,190	114,950
New Westminster, BC	64	26,990	19,101	515,524	21,010	90,907
Niagara Falls, Ont.	78	49,310	18,355	905,076	36,600	160,413
North Bay, Ont.	82	34,840	18,282	636,869	25,390	111,586
North Vancouver, BC ⁴	17	70,820	23,705	1,678,799	58,570	326,953

22.9 Taxpayers in selected cities, 1986 (concluded)

Cities arranged alphabetically and ranked in order of average income ¹	All returns				Taxable returns	
	Rank ²	No. of returns	Average income \$	Total income \$'000	No. of returns	Total tax payable \$'000 ³
North York, Ont.	9	292,400	24,569	7,184,253	238,410	1,478,339
Oakville, Ont.	3	60,910	28,943	1,762,934	50,240	395,697
Oshawa, Ont.	32	83,380	21,317	1,777,384	65,870	348,895
Ottawa, Ont.	12	233,510	24,267	5,666,628	189,100	1,117,130
Peterborough, Ont.	71	49,900	18,744	935,325	37,460	161,277
Pierrefonds, Ont.	8	33,100	25,109	831,163	27,800	176,468
Pierrefonds, Que.	33	25,460	21,315	542,577	20,460	68,806
Prince George, BC	47	47,160	20,208	953,033	35,640	183,825
Quebec, Que.	94	113,620	17,380	1,974,816	83,230	220,773
Red Deer, Alta.	49	37,610	20,051	754,025	29,930	133,839
Regina, Sask.	37	116,490	21,020	2,448,669	93,340	472,514
Repentigny, Que.	24	27,080	22,522	609,943	22,130	78,980
Richmond, BC	26	72,470	22,262	1,613,335	59,980	300,893
Richmond Hill, Ont.	4	35,900	25,751	924,454	30,380	195,565
Sarnia, Ont.	27	46,320	22,130	1,025,048	35,490	200,670
Saskatoon, Sask.	51	117,310	19,862	2,330,045	91,730	430,584
Sault Ste Marie, Ont.	72	54,160	18,649	1,010,027	38,980	182,769
Scarborough, Ont.	34	320,770	21,163	6,788,638	262,540	1,293,905
Sherbrooke, Que.	100	54,470	16,766	913,330	39,740	99,101
St. Catharines, Ont.	45	83,050	20,322	1,687,738	63,210	312,612
St-Hubert, Que.	85	42,220	18,204	768,535	32,870	91,011
St. John's, Nfld.	84	60,900	18,205	1,108,713	45,400	214,190
St-Laurent, Que.	48	43,690	20,085	877,530	34,860	103,259
St. Léonard, Que.	93	48,060	17,417	837,096	38,520	94,257
St. Thomas, Ont.	77	24,920	18,378	457,967	19,230	77,998
Ste-Foy, Que.	30	54,380	21,422	1,164,963	43,070	142,261
Stoney Creek, Ont.	36	30,790	21,098	649,556	24,640	122,355
Sudbury, Ont.	68	61,190	18,974	1,161,026	44,960	208,374
Surrey, BC	66	109,920	19,047	2,093,776	85,160	372,780
Thunder Bay, Ont.	42	80,320	20,406	1,639,096	62,450	303,567
Timmins, Ont.	65	29,660	19,058	565,207	21,390	106,296
Toronto, Ont.	20	747,500	23,089	17,259,736	592,830	3,511,645
Trois-Rivières, Que.	97	34,540	17,179	593,405	24,520	68,381
Vancouver, BC	28	319,090	21,589	6,888,959	248,690	1,294,714
Vaughan, Ont.	6	30,850	25,424	784,369	25,820	174,460
Verdun, Que.	86	39,330	17,975	707,955	29,700	82,232
Vernon, BC	96	25,250	17,294	436,622	18,380	69,571
Victoria, BC	43	153,810	20,376	3,134,020	122,390	524,994
Waterloo, Ont.	16	41,640	23,842	992,710	33,440	194,257
Welland, Ont.	80	31,670	18,342	580,926	23,310	103,301
West Vancouver, BC	1	24,580	33,982	835,396	20,170	188,011
Whitby, Ont.	10	30,240	24,510	741,110	24,800	155,725
Windsor, Ont.	29	138,150	21,483	2,968,004	105,500	562,300
Winnipeg, Man.	76	443,250	18,399	8,155,718	329,990	1,470,830
York, Ont.	35	66,680	21,129	1,408,983	55,130	262,842

¹ The ranking in this table is based on the average income of all returns.² Cities included in this table have a population of 24,500 or more taxpayers for the 1986 tax year. Consequently, the average incomes here are not necessarily the 100 highest average incomes in Canada.³ Federal and provincial.⁴ Figures related to Langley and North Vancouver, BC represent those for the District Municipality as well as the city.**22.10 Taxfilers by occupation, income assessed and tax, 1986¹**

Occupational group	Taxfilers No.	Total income assessed \$'000	Net federal tax payable \$'000
Employees	10,886,000	248,574,989	31,770,911
Farmers	263,650	4,151,812	283,237
Fishermen	37,340	764,889	84,043
Self-employed professionals			
Accountants	12,260	727,765	117,753
Medical doctors and surgeons	35,700	3,785,798	782,977
Dentists	8,900	748,867	135,148
Lawyers and notaries	20,400	1,517,896	285,965
Consulting engineers and architects	5,100	196,434	30,362
Entertainers and artists	21,530	290,526	30,672
Other professionals	63,650	1,735,585	236,738
Salespeople	39,140	759,804	89,815
Total business proprietors	542,380	8,084,105	812,588
Investors	1,049,810	24,399,904	2,400,684
Property owners	131,780	2,716,285	329,093
Pensioners	1,529,190	20,008,631	1,262,822
All others	1,891,250	9,248,714	706,182
Total	16,538,060	327,712,006	39,358,989

¹ Includes all returns.

22.11 Corporation income taxes, by industrial division (million dollars)

Year and industrial division	Book profit before taxes	Taxable income	Federal income taxes	Provincial income taxes	Total income taxes
1984 [†] Total, all industries	57,222.8	38,692.6	9,040.7	3,622.8	12,663.5
1985					
Agriculture, forestry and fishing	525.5	625.2	77.2	44.1	121.3
Mining	9,342.7	7,393.8	2,277.9	727.7	3,005.6
Manufacturing	14,537.4	12,816.0	2,536.8	1,389.4	3,926.2
Construction	1,373.2	1,481.3	270.3	92.1	362.4
Transportation, communications and other utilities	4,868.9	4,030.8	1,126.6	454.1	1,580.7
Wholesale trade	3,864.6	3,434.9	833.8	320.9	1,154.7
Retail trade	2,743.0	2,492.0	482.8	187.5	670.3
Finance	17,444.0	5,199.2	1,434.1	537.1	1,971.2
Services	3,489.0	3,715.1	808.0	309.8	1,117.8
Total, all industries	58,188.4	41,188.4	9,847.6	4,062.7	13,910.3
1986					
Agriculture, forestry and fishing	589.2	626.0	76.5	49.1	125.6
Mining	-2,072.9	2,458.4	688.8	233.3	922.1
Manufacturing	19,465.6	14,038.5	2,924.2	1,565.2	4,489.4
Construction	1,653.1	1,695.4	308.1	130.4	438.5
Transportation, communications and other utilities	5,610.0	4,239.6	1,290.1	488.7	1,778.8
Wholesale trade	4,041.0	3,699.9	959.6	367.2	1,326.8
Retail trade	3,961.9	2,775.8	634.7	245.3	880.0
Finance	23,929.9	6,448.6	1,864.6	709.0	2,573.6
Services	3,686.6	3,936.6	877.5	360.1	1,237.6
Total, all industries	60,864.5	39,919.0	9,624.1	4,148.2	13,772.3

22.12 Taxable income of corporations, by province (million dollars)

Province or territory	1982	1983	1984 [†]	1985	1986
Newfoundland	224.8	285.6	385.4	418.7	366.5
Prince Edward Island	60.6	64.5	87.0	84.0	128.1
Nova Scotia	421.2	488.3	572.6	633.7	691.3
New Brunswick	308.1	404.7	532.4	534.7	556.2
Quebec	4,456.2	5,633.1	7,388.3	8,208.0	8,968.2
Ontario	9,079.9	11,539.0	15,265.3	16,309.1	17,831.6
Manitoba	736.6	791.1	918.7	939.8	1,076.6
Saskatchewan	776.8	860.0	966.9	924.7	796.3
Alberta	6,926.4	8,259.8	9,143.4	9,798.0	5,744.1
British Columbia	2,296.1	2,363.4	2,688.1	2,650.0	3,182.1
Yukon	18.4	15.6	26.9	19.7	29.3
Northwest Territories	54.9	90.5	140.4	141.8	55.0
Other ¹	712.2	386.0	577.4	526.3	493.7
Canada	26,072.1	31,181.5	38,692.6	41,188.4	39,919.0

¹ Includes taxable income of corporations, foreign operations and non-resident-owned investment corporations.

22.13 Excise taxes collected, by commodity, selected years ended March 31, 1983-84 to 1987-88 (million dollars)

Commodity	1983-84			1985-86			1987-88		
	Imports	Domestic	Total	Imports	Domestic	Total	Imports	Domestic	Total
Sales tax	1,341.5	6,101.0	7,442.5	1,538.5	8,269.8	9,808.3	2,182.2	11,434.2	13,616.4
Gasoline	0.5	470.5	471.0	0.1	878.4	878.5	8.4	2,331.9	2,340.3
Aviation and diesel fuel	...	...	...	...	97.3	97.3	—	521.2	521.2
Other excise taxes									
Cigars	0.4	6.7	7.1	0.7	8.9	9.6	0.7	9.5	10.2
Cigarettes	4.4	503.7	508.1	5.8	1,005.0	1,010.8	7.1	1,183.6	1,190.7
Manufactured tobacco	4.0	17.3	21.3	5.4	38.1	43.5	6.5	53.8	60.3
Jewellery, clocks, watches, etc.	6.9	40.0	46.9	10.4	49.1	59.5	14.3	40.8	55.1
Lighters, matches and smokers' accessories	1.8	3.4	5.2	1.5	4.0	5.5	1.1	4.3	5.4
Playing cards	0.7	1.1	1.8	0.3	1.2	1.5	0.3	1.4	1.7
Coin games	3.4	0.4	3.8	1.0	—	1.0	1.6	0.1	1.7
Wines	38.0	47.2	85.2	45.4	56.6	102.0	45.9	65.1	111.0
Automobiles	0.5	0.2	0.7	0.5	0.6	1.1	0.5	0.6	1.1
Automotive air conditioners	4.2	23.5	27.7	3.4	50.7	54.1	4.5	60.0	64.5
Licences, interest and miscellaneous	0.9	19.7	20.6	5.0	12.4	17.4	7.0	18.1	25.1
Total	1,407.2	7,234.6	8,641.8	1,617.9	10,472.1	12,090.0	2,280.1	15,724.6	18,004.7

22.14 Special excise tax rates as at December 1986 and December 1987

Item	Tax	
	December 1986	December 1987
Cigarettes (per 5 cigarettes)	10.277¢	10.688¢
Cigars	30.0%	30.0%
Pipe tobacco, cut tobacco, snuff	\$6.254/kg	\$6.504/kg
Jewellery, including articles of ivory, amber, shell, precious or semi-precious stones, clocks and watches ¹ , goldsmiths' and silversmiths' products, except gold-plated or silver-plated ware for the preparation or serving of food or drink	10%	10%
Lighters	10¢	10¢
Playing cards (per pack)	20¢	20¢
Slot machines — coin-, disc- or token-operated games or amusement devices	10%	10%
Matches	4¢ for each 1,000	4¢ for each 1,000
Tobacco, pipes, cigar and cigarette holders and cigarette rolling devices	10%	10%
Tobacco		
On manufactured tobacco of all descriptions except cigarettes, per kilogram actual mass	\$2.339	\$2.433
On cigarettes having a mass of not more than one thousand three hundred and sixty-one grams (1 361 g) per thousand	\$10.120	\$10.525
On cigarettes having a mass of more than one thousand three hundred and sixty-one grams (1 361 g) per thousand	\$11.946	\$12.424
On cigars, per thousand	\$5.576	\$5.799
On Canadian raw leaf tobacco when sold for consumption, per kilogram actual mass	60.844¢	63.278¢
Distilled spirits, per litre of absolute ethyl alcohol distilled in Canada	\$10.733	\$10.733
Beer ²		
On all beer or malt liquor containing more than 2.5% absolute ethyl alcohol by volume per hectolitre	\$19.323	\$19.323
On all beer or malt liquor containing more than 1.2% but not more than 2.5% absolute ethyl alcohol by volume per hectolitre	\$9.660	\$9.660
On all beer or malt liquor containing not more than 1.2% absolute ethyl alcohol by volume per hectolitre	\$1.789	\$1.789
Wines ³ (additional excise taxes ⁴)		
Wines of all kinds containing not more than 1.2% absolute alcohol by volume	1.79¢/L	1.79¢/L
Wines of all kinds containing not more than 7% absolute alcohol by volume	21.47¢/L	21.47¢/L
Wines of all kinds containing more than 7% absolute alcohol by volume	44.72¢/L	44.72¢/L
Insurance premiums paid to British or foreign companies not authorized to transact business in Canada or to non-resident agents of authorized British or foreign companies	10%	10%
Air transportation tax on tickets purchased in or outside of Canada for transportation of persons		
(a) in the taxation area ⁵ (including travel in Canada)	10% max. \$50.00	10% + \$4.00 max. \$50.00
(b) beginning in Canada and ending outside the taxation area ⁶	\$15.00	\$19.00

22.14 Special excise tax rates as at December 1986 and December 1987 (concluded)

Item	Tax	
	December 1986	December 1987
Automobiles, station wagons and vans designed for use as passenger vehicles — tax applies to vehicles which exceed the specified mass for the vehicle type ⁷		
Automobile mass limit 2 007 kg		
Station wagon and van mass limit 2 268 kg		
Tax rates:		
— for the portion of the mass that exceeds the mass limit but not more than 45 kg ⁸	\$30.00	\$30.00
— for the portion of the mass that exceeds the mass limit by 45 kg but not more than 90 kg	\$40.00	\$40.00
— for the portion of the mass that exceeds the mass limit by 90 kg but not more than 135 kg	\$50.00	\$50.00
— for each additional 45 kg in excess of the mass limit plus 135 kg	\$60.00	\$60.00
Gasoline for personal use	3.5¢/L	5.5¢/L
Diesel fuel, aviation jet fuel and gasoline for business use	2.0¢/L	4.0¢/L
Air conditioners designed for use in automobiles, station wagons, vans or trucks	\$100	\$100

Almost all of the foregoing items, except insurance premiums and air transportation, are also subject to the general sales tax.

Alcohol and tobacco products are subject to additional taxes under the Excise Act (referred to as excise duties).

¹ Special excise tax only applies on the amount by which the sale price or the duty-paid value of the clock or watch exceeds \$50.

² Mixed beverages produced in a distillery that contain not more than 7.0% absolute ethyl alcohol by volume per litre.

³ These taxes apply only to wines manufactured in Canada. The customs tariff on wines includes a levy on imported wines to correspond to the taxes on domestic production.

⁴ These taxes apply to both domestic and imported wines.

⁵ Includes Canada, the islands of St. Pierre and Miquelon, and the US except Hawaii.

⁶ Reduced to \$4 for a child under 12 travelling at a fare of 50% or more below the applicable fare; nil if the fare is 90% below the applicable fare.

⁷ Excludes ambulances, hearses, and vehicles for police or firefighting.

⁸ The weight limit is 4,425 lb. for automobiles and 5,000 lb. for station wagons and vans.

22.15 Liabilities of provincial and territorial governments, years ended March 31 (million dollars)

Year and province or territory		Short-term bank loans and overdrafts	Payables	Loans and advances	Treasury bills	Savings bonds	Bonds and debentures	Other securities	Deposits and other liabilities	Total
Canada	1984	493	5,897	2,945	4,388	1,939	73,194	3,414	13,481	105,751
	1985	569	6,678	3,105	4,247	2,671	80,932	6,340	15,495	120,037
	1986	2,450	8,217	3,463	4,339	2,733	89,405	8,431	17,932	136,970
1987										
Newfoundland		82	113	296	128	—	4,098	65	13	4,795
Prince Edward Island		7	56	14	—	—	493	—	49	619
Nova Scotia		50	361	159	—	—	5,322	125	26	6,043
New Brunswick		16	330	46	30	—	3,730	98	299	4,549
Quebec		419	4,518	2,342	1,555	2,806	21,861	1,455	10,012	44,968
Ontario		1,992	63	380	650	—	34,706	6	7,308	45,105
Manitoba		29	480	248	325	2	8,143	399	468	10,094
Saskatchewan		171	100	10	650	—	7,183	2,036	164	10,314
Alberta		5	1,288	4	650	—	7,926	3,777	1,220	14,870
British Columbia		190	1,213	50	650	—	5,097	5,060	1,506	13,766
Yukon		—	35	10	—	—	—	—	13	58
Northwest Territories		9	110	—	—	—	—	—	—	119
Canada		2,970	8,667	3,559	4,638	2,808	98,559	13,021	21,078	155,300

22.16 Liabilities guaranteed by provincial and territorial governments¹, years ended March 31 (million dollars)

Year and province or territory		Bonds and debentures	Bank loans	Other	Total
Canada	1984	52,320	2,403	6,249	60,972
	1985	55,230	2,841	7,629	65,700
	1986	58,337	1,967	9,242	69,546
1987					
Newfoundland		923	77	111	1,111
Prince Edward Island		3	31	1	35
Nova Scotia		1,448	533	131	2,112
New Brunswick		1,862	145	435	2,442
Quebec		21,494	913	2,087	24,494
Ontario		16,118	384	1,101	17,603
Manitoba		1,476	—	20	1,496
Saskatchewan		230	43	202	475
Alberta		5,996	432	4,937	11,365
British Columbia		9,492	—	592	10,084
Yukon		—	—	62	62
Northwest Territories		—	—	100	100
Canada		59,042	2,558	9,779	71,379

¹ Excludes liabilities of provincial government special funds guaranteed by provincial governments but considered as provincial government liabilities.

22.17 Bonds and debentures¹, by market, of provincial governments, year ended March 31, 1987 (million dollars)

Province	Domestic	Foreign			Total
		Traditional		International	
		United States	Europe	Other	
Newfoundland	2,160	1,069	158	—	4,098
Prince Edward Island	492	1	—	—	493
Nova Scotia	2,780	1,120	368	269	5,322
New Brunswick	1,587	1,321	92	172	3,730
Quebec	16,350	2,294	2,512	1,155	24,667
Ontario	28,032	6,667	7	—	34,706
Manitoba	3,293	871	1,888	1,012	8,146
Saskatchewan	4,555	777	—	1,851	7,183
Alberta	7,778	48	—	100	7,926
British Columbia	4,910	62	—	125	5,097
Total	71,937	14,230	5,025	2,678	101,368

¹ Includes savings bonds.

22.18 Summary of transfers by the federal government to provincial governments, territories and local governments¹, years ended March 31 (million dollars)

Payee and year	General purpose transfers	Specific purpose transfers	Total
ALL PROVINCES AND TERRITORIES			
1981	4,229	8,568	12,797
1982	5,089	9,261	14,350
1983	5,974	10,203	16,177
1984	6,331	12,139	18,470
1985	6,556	15,427	21,983
SPECIFIC PROVINCES AND TERRITORIES			
1986			
Newfoundland	714	368	1,082
Prince Edward Island	146	109	255
Nova Scotia	621	584	1,205
New Brunswick	669	523	1,192
Quebec	2,922	3,336	6,258
Ontario	144	4,407	4,551
Manitoba	494	640	1,134
Saskatchewan	2	818	820
Alberta	220	1,394	1,614
British Columbia	27	1,811	1,838
Yukon	139	27	166
Northwest Territories	447	66	513
Total	6,545	14,083	20,628
	General purpose transfers (grants in lieu of taxes)	Specific purpose transfers	Total
LOCAL GOVERNMENTS			
1981	158	152	310
1982	220	129	349
1983	214	90	304
1984	229	159	388
1985	275	117	392
LOCAL GOVERNMENTS IN SPECIFIC PROVINCES AND TERRITORIES			
1986			
Newfoundland	3	16	19
Prince Edward Island	1	—	1
Nova Scotia	17	2	19
New Brunswick	3	5	8
Quebec	50	14	64
Ontario	117	25	142
Manitoba	14	5	19
Saskatchewan	6	1	7
Alberta	15	6	21
British Columbia	25	13	38
Yukon	1	—	1
Northwest Territories	2	1	3
Total	254	88	342
Total of transfers to provincial governments, territories and local governments	1981		13,107
	1982		14,699
	1983		16,481
	1984		18,858
	1985		22,375
	1986		20,970

¹ Further details available in *Federal government finance* (Statistics Canada 68-211).

22.19 Gross general revenue of provincial and territorial governments, years ended March 31 (million dollars)

Province or territory and source	1982 ^f	1983 ^f	1984 ^f	1985	1986
Newfoundland	1,632	1,758	1,948	2,075	2,275
Prince Edward Island	367	390	432	447	491
Nova Scotia	2,179	2,334	2,599	2,809	2,975
New Brunswick	1,818	2,011	2,292	2,502	2,796
Quebec	21,218	23,296	25,464	26,716	29,112
Ontario	19,584	21,377	23,552	26,488	29,189
Manitoba	2,691	3,039	3,509	3,747	4,080
Saskatchewan	3,133	3,295	3,602	3,725	3,984
Alberta	11,269	12,458	12,862	13,949	13,819
British Columbia	8,055	8,784	9,629	10,122	10,752
Yukon	152	171	193	208	247
Northwest Territories	401	462	568	606	694
Total¹	72,499	79,375	86,650	93,394	100,414
Gross general revenue by source					
Income tax					
Individual	16,498	18,952	19,021	19,727	22,081
Corporation	3,678	2,348	2,988	3,646	4,033
General sales tax	7,041	7,734	9,059	10,195	11,727
Motive fuel tax	2,593	3,008	3,229	3,180	3,264
Health insurance premiums	2,801	3,129	3,344	3,520	3,670
Social insurance levies	2,101	2,365	2,487	2,800	3,161
Natural resource revenue	6,734	6,763	7,601	8,089	7,700
Privileges, licences and permits	1,736	1,837	1,931	2,131	2,169
Liquor profits	1,484	1,740	1,855	1,974	2,112
Other revenue from own sources	13,073	15,738	16,381	18,088	19,900
General purpose transfers from other levels of government	5,054	6,082	6,201	6,460	6,605
Specific purpose transfers from other levels of government	9,706	9,679	12,553	13,584	13,992
Total¹	72,499	79,375	86,650	93,394	100,414

¹ 1982 to 1985 data have been revised to treat government-owned employee pension plans as trusted.

22.20 Gross general expenditure of provincial and territorial governments, years ended March 31 (million dollars)

Province or territory and function	1982 ^f	1983 ^f	1984 ^f	1985	1986
Newfoundland	1,701	1,973	2,234	2,265	2,467
Prince Edward Island	368	422	435	461	506
Nova Scotia	2,598	2,730	2,943	3,239	3,391
New Brunswick	1,959	2,392	2,534	2,738	2,918
Quebec	22,358	25,062	27,414	29,594	31,571
Ontario	21,175	24,292	26,537	28,694	33,260
Manitoba	2,938	3,458	4,033	4,172	4,637
Saskatchewan	3,017	3,586	3,830	4,234	4,902
Alberta	8,933	12,361	12,280	12,256	13,593
British Columbia	8,015	9,853	10,559	10,959	11,390
Yukon	145	164	177	194	221
Northwest Territories	375	459	517	593	659
Total¹	73,583	86,752	93,492	99,399	109,515
Gross general expenditure by function					
General government	4,306	4,582	5,215	5,128	5,536
Protection of persons and property	2,408	2,629	2,803	3,075	3,184
Transportation and communications	5,162	6,091	5,942	5,572	6,171
Health	18,072	20,998	22,972	24,431	26,471
Social services	10,835	13,288	14,926	16,338	17,582
Education	15,955	18,329	19,525	19,504	22,266
Resources, conservation and industrial development	4,478	5,976	5,964	6,404	7,636
Regional planning and development	679	776	804	789	683
Debt charges	6,240	8,110	8,911	11,218	12,608
General purpose transfers to local governments	1,598	1,631	1,738	1,778	1,854
All other expenditures	3,850	4,340	4,692	5,162	5,524
Total¹	73,583	86,752	93,492	99,399	109,515

¹ 1982 to 1985 data have been revised to treat government-owned employee pension plans as trusted.

22.21 General revenue of local governments, by source, years ended December 31 (million dollars)

Local governments in provinces and territories	1980	1981	1982	1983	1984
Newfoundland	155	179	184	186	228
Prince Edward Island	72	79	94	95	101
Nova Scotia	802	912	1,036	1,114	1,171
New Brunswick	194	225	257 ^T	282	307
Quebec	7,456	8,190	8,505 ^T	8,780	9,199
Ontario	10,194	11,738	13,114	14,273	15,340
Manitoba	1,122	1,254	1,438	1,543	1,640
Saskatchewan	1,073	1,231	1,347	1,522	1,603
Alberta	3,443	4,239	4,909	5,302	5,366
British Columbia	2,700	3,280	3,619	3,715	3,819
Yukon	14	17	16	20	20
Northwest Territories	41	56	58	65	80
Canada	27,266	31,400	34,577 ^T	36,897	38,874
Revenue by source					
Taxes	9,695	11,141	12,127 ^T	12,954	13,814
Grants in lieu of taxes	643	734	778 ^T	821	888
Sales of goods and services	2,426	2,921	3,140 ^T	3,416	3,613
Rentals	181	200	230	295	323
Concessions and franchises	36	36	43	56	65
Licences and permits	132	156	118	154	166
Remittances from own enterprises	147	144	174	216	244
Interest	598	922	981	768	915
Fines	215	258	325	341	327
Miscellaneous	630	641	543	511	551
General purpose transfers					
Provincial governments	1,235	1,231	1,217 ^T	1,246	1,253
Specific purpose transfers					
Federal government	187	186	153 ^T	244 ^T	253
Provincial governments	11,141	12,830	14,748 ^T	15,875 ^T	16,462
Total, general revenue	27,266	31,400	34,577 ^T	36,897	38,874

22.22 General expenditure of local governments, years ended December 31 (million dollars)

Local governments in provinces and territories	1980	1981	1982 ^T	1983	1984
Newfoundland	179	194 ^T	219	217	243
Prince Edward Island	71	87	93	93	99
Nova Scotia	835	917	990	1,085	1,145
New Brunswick	208	231	267	295	311
Quebec	7,708	8,519	8,744	9,280	9,669
Ontario	10,048	11,338	12,896	14,077	15,044
Manitoba	1,110	1,214	1,334	1,476	1,594
Saskatchewan	1,094	1,258	1,350	1,522 ^T	1,615
Alberta	3,906	4,741	5,690	5,554 ^T	5,571
British Columbia	2,856	3,472	3,878	3,944	3,894
Yukon	16	17	16	19	20
Northwest Territories	40	53	57	62	74
Canada	28,071	32,041 ^T	35,534	37,624 ^T	39,279
Expenditures by function					
General government	1,464	1,668	1,973	2,050 ^T	2,202
Protection of persons and property	2,128	2,477	2,831	3,008	3,134
Transportation and communications	3,304	3,594	3,895	3,596	3,901
Environment	2,399	2,585	2,656	2,785	2,771
Health	1,421	1,702	1,966	2,200	2,310
Social welfare	848	938	1,111	1,303	1,384
Regional planning and development	322	399	366	348	351
Housing — general assistance	53	119	197	121	249
Resource conservation and industrial development	324	349	416	401 ^T	401
Recreation and culture	1,781	1,973	2,180	2,196	2,383
Education — primary and secondary	11,611	13,385 ^T	14,709	15,847 ^T	16,246
Fiscal services	2,347	2,711	3,048	3,612	3,776
Other services	69	141	186	157 ^T	171
Total, general expenditure	28,071	32,041 ^T	35,534	37,624 ^T	39,279

22.23 Direct debt of local governments, years ended December 31 (million dollars)

Year and province or territory	Payables	Bank loans	Advances	Bonds and debentures	Other liabilities	Total direct debt
Total, 1985	3,588	1,035	2,489	26,345	958	34,415
Total, 1986	3,901	1,031	3,035	27,470	1,145	36,582
1987						
Newfoundland	38	72	24	412	13	559
Prince Edward Island	4	17	3	63	2	89
Nova Scotia	120	14	55	413	33	635
New Brunswick	40	10	33	316	30	429
Quebec	975	647	1,125	11,626	475	14,848
Ontario	1,453	144	1,075	4,179	218	7,069
Manitoba	334	68	25	979	42	1,448
Saskatchewan	100	30	33	423	40	626
Alberta	843	19	336	5,369	263	6,830
British Columbia	448	34	492	4,400	208	5,582
Yukon	9	1	--	8	2	20
Northwest Territories	11	—	--	20	6	37
Total	4,375	1,056	3,201	28,208	1,332	38,172

22.24 Government employment and gross payroll, by province and territory, for fiscal years ended March 31

Province or territory	General government ¹ and gross payroll							
	Federal government employees	Provincial government employees	Local government ² employees	Total, general government employees	Federal government gross payroll \$'000,000	Provincial government gross payroll \$'000,000	Local government gross payroll \$'000,000	Total, general government gross payroll \$'000,000
1988								
Newfoundland and Labrador	8,179	24,163	2,498	34,840	245	555	57	857
Prince Edward Island	3,344	4,492	2,765	10,601	98	110	66	274
Nova Scotia	31,861	21,887	28,598	82,346	978	543	730	2,251
New Brunswick	13,398	36,828	3,997	54,223	404	893	113	1,410
Quebec	68,485	103,858	183,324	355,667	2,177	3,260	5,325	10,762
Ontario	143,555	131,356	355,543	630,454	4,819	3,771	9,937	18,527
Manitoba	17,955	19,004	41,203	78,162	550	524	1,049	2,123
Saskatchewan	9,864	22,164 ^c	41,354	73,382	330	534	1,004	1,868
Alberta	25,382	67,901 ^c	112,314	205,597 ^c	807	1,727 ^c	2,942	5,476 ^c
British Columbia	37,220	52,588	83,186	172,994	1,174	1,342	2,324	4,840
Yukon	1,100	2,585	256	3,941	38	81	8	127
Northwest Territories	1,940	5,018	1,081	8,039	61	194	27	282
Outside Canada	14,980	—	—	14,980	550	—	—	550
Total	377,263	491,844 ^c	856,119	1,725,226 ^c	12,231	13,534 ^c	23,582	49,347 ^c
Total, 1987	378,440	488,408	840,934	1,707,782	12,085	12,991	22,043	47,119
Total, 1986	381,185	485,338	827,695	1,694,218	11,242	12,405	21,030	44,677

Government enterprises and gross payroll

	Federal enterprise employees	Provincial enterprise employees	Local enterprise employees	Total, government enterprise employees	Federal enterprise gross payroll \$'000,000	Provincial enterprise gross payroll \$'000,000	Local enterprise gross payroll \$'000,000	Total, government enterprise gross payroll \$'000,000
1988								
Newfoundland and Labrador	5,977	2,908	3	8,885	159	80	3	239
Prince Edward Island	921	236	3	1,157	28	6	3	34
Nova Scotia	6,093	4,876	511	11,480	182	140	15	337
New Brunswick	7,848	4,117	274	12,239	244	137	8	389
Quebec	49,188	36,008	11,464	96,660	1,607	1,340	390	3,337
Ontario	68,769	40,539	24,932	134,240	2,143	1,544	913	4,600
Manitoba	14,625	12,172	2,412	29,209	455	382	75	912

22.24 Government employment and gross payroll, by province and territory, for fiscal years ended March 31 (concluded)

Province or territory	Government enterprises and gross payroll							
	Federal enterprise employees	Provincial enterprise employees	Local enterprise employees	Total, government enterprise employees	Federal enterprise gross payroll \$'000,000	Provincial enterprise gross payroll \$'000,000	Local enterprise gross payroll \$'000,000	Total, government enterprise gross payroll \$'000,000
1988 (concluded)								
Saskatchewan	6,326	12,660	627	19,613	182	427	21	630
Alberta	17,815	16,881	7,276	41,972	610	497	240	1,347
British Columbia	17,194	21,200	514	38,908	513	725	17	1,255
Yukon	508	86	3	594	19	3	3	22
Northwest Territories	558	168	...	726	22	6	...	28
Outside Canada	5,557	—	—	5,557	202	—	—	202
1988	201,379	151,851	48,010	401,240	6,366	5,287	1,679	13,332
Total, 1987	202,190	152,912	47,449	402,551	6,398	5,319	1,526	13,243
Total, 1986	211,180	155,708	46,185	413,073	6,465	5,174	1,443	13,082
Total government employment and gross payroll								
	Federal government employees	Provincial government employees	Local government employees ²	Total, government employees	Federal government gross payroll \$'000,000	Provincial government gross payroll \$'000,000	Local government gross payroll \$'000,000	Total, government gross payroll \$'000,000
1988								
Newfoundland and Labrador	14,156	27,071	2,498	43,725	404	635	57	1,096
Prince Edward Island	4,265	4,728	2,765	11,758	126	116	66	308
Nova Scotia	37,954	26,763	29,109	93,826	1,160	683	745	2,588
New Brunswick	21,246	40,945	4,271	66,462	648	1,030	121	1,799
Quebec	117,673	139,866	194,788	452,327	3,784	4,600	5,715	14,099
Ontario	212,324	171,895	380,475	764,694	6,962	5,315	10,850	23,127
Manitoba	32,580	31,176	43,615	107,371	1,005	906	1,124	3,035
Saskatchewan	16,190	34,824 ^c	41,981	92,995 ^c	512	961	1,025	2,498
Alberta	43,197	84,782 ^c	119,590	247,569 ^c	1,417	2,224 ^c	3,182	6,823 ^c
British Columbia	54,414	73,788	83,700	211,902	1,687	2,067	2,341	6,095
Yukon	1,608	2,671	236	4,535	57	84	8	149
Northwest Territories	2,498	5,186	1,081	8,765	83	200	27	310
Outside Canada	20,537	—	—	20,537	752	—	—	752
1988	578,642	643,695 ^c	904,129	2,126,466 ^c	18,597	18,821 ^c	25,261	62,679 ^c
Total, 1987	580,630	641,320	888,383	2,110,333	18,483	18,310	23,569	60,362
Total, 1986	592,365	641,046	873,880	2,107,291	17,707	17,579	22,473	57,759

¹ The general government category includes military personnel and employees of departments, agencies, boards, commissions and government-owned institutions. Excluded are members of boards or commissions paid on a per diem basis or by an honorarium for services, interviewers employed by Statistics Canada Regional Offices for regular surveys, and elected officials.

² Local government data include municipal hospitals and local school boards.

³ Confidential data.

Sources

22.1 – 22.6, 22.15 – 22.24 Public Institutions Division, Statistics Canada.

22.7 – 22.10 Statistical Services Division, Revenue Canada, Taxation.

22.11, 22.12 Industrial Organization and Finance Division, Statistics Canada.

22.13, 22.14 Sales and Excise Tax Division, Department of Finance.

CHAPTER 23

REVIEW OF THE ECONOMY

REVIEW OF THE ECONOMY

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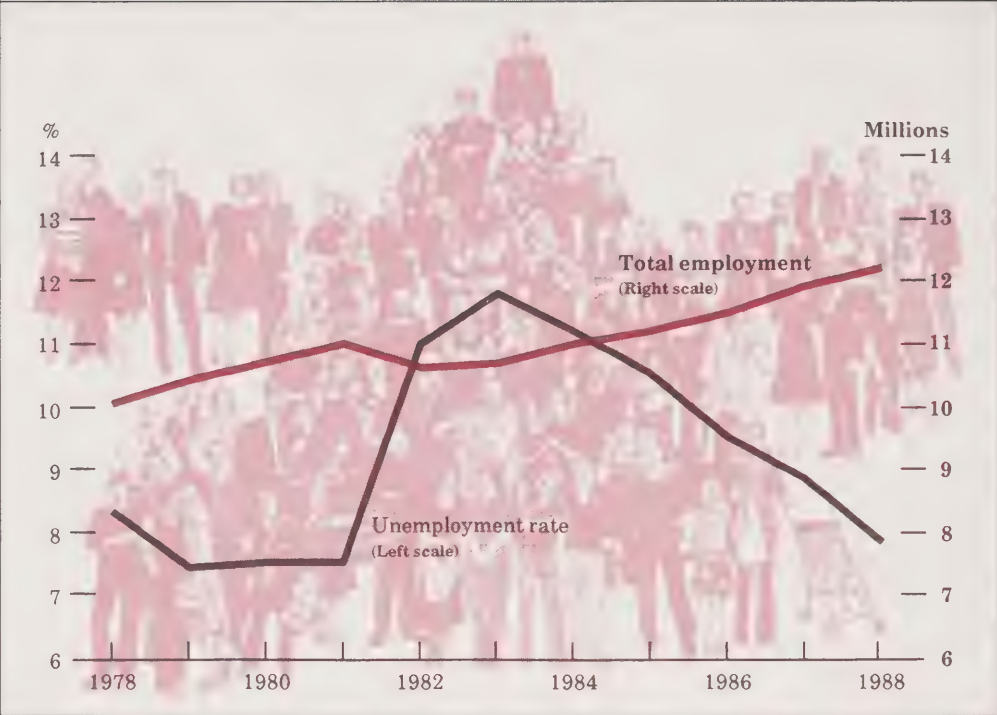
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EMPLOYMENT AND UNEMPLOYMENT

Canada's unemployment rate fell to 8.9% in 1987, marking its fourth consecutive decline from the high of 11.9% in 1983. Although unemployment has not been below 9% since 1981, the total level of employment in the country has steadily increased since 1982, gaining almost 3% each year since 1983. Overall, Canada's total labour force increased by 2% in 1987.

CHAPTER 23

REVIEW OF THE ECONOMY

23.1 Canada's economic performance, 1987

Canada's real Gross Domestic Product (GDP) expanded 4.0% in 1987. Fuelled by strong growth in consumer spending, residential construction and business investment in machinery and equipment, the Canadian economy ended the year with 20 consecutive quarters of growth. Rebounding from the weaker 3.2% expansion in 1986, Canadians remained confident in the aftermath of Black Monday, the worldwide stock market crash that occurred on October 19, 1987. Expectations of economic recession, due to a forecast drop in consumer confidence, falling business investment and exports were seen as results of the worldwide decline in wealth. However, Canada's fourth quarter real GDP registered the same 1.6% growth as in the first quarter of 1987, and growth continued at a 4% annual rate into 1988.

Consumer confidence was exceptionally buoyant in 1987. The index of consumer attitudes and buying intentions, a survey introduced by the Conference Board of Canada in 1961, recorded a record high yearly average of 128, 28% above the normal average of approximately 100. While the index did drop 5.1% in the fourth quarter following October 19th, it rebounded to historically high levels early in 1988.

23.1.1 Personal expenditures

The buoyant optimism of consumers was reflected in their robust spending throughout 1987. Real personal expenditures on consumer goods and services grew by 4.7%. Low interest rates, falling unemployment and a stable inflation rate not only sparked consumer spending but brought the personal saving rate of Canadians down to 9.6%, its lowest level since 1972.

Although the total amount of personal savings has been steadily declining since 1984, certain components have been steadily increasing in size. Savings, through life insurance and trustee pension plans (\$19.2 billion in 1987), accounted for over 5% of disposable income, while savings through registered retirement savings plans

(\$8 billion in 1987) rose to account for just over 2% of disposable income. Personal discretionary savings available for other uses, however, was the one declining component of total savings. This component dropped from 48.6% of total savings in 1984 to 17.4% for 1987. Comparatively, savings of Registered Retirement Savings Plans (RRSPs) and trustee pension plans rose from 34.6% of total savings to 54.6% over the same time period.

All major components of personal expenditure posted solid gains in the year. Consumer spending on durable goods increased 8.6% for 1987. The 6.9% jump in personal disposable incomes once again resulted in a rush to purchase motor vehicle products (up 8.1%) and furniture and household appliances (up 9.4%) for the year. This category cooled, however, in the fourth quarter and gained only 1.9%; average quarterly increases were more than 3% earlier in the year. While spending on semi-durable and non-durable goods was somewhat weak throughout the four quarters and posted annual gains of 4.4% and 1.9%, respectively, expenditures on services grew at the more vibrant pace of 5%.

23.1.2 Housing

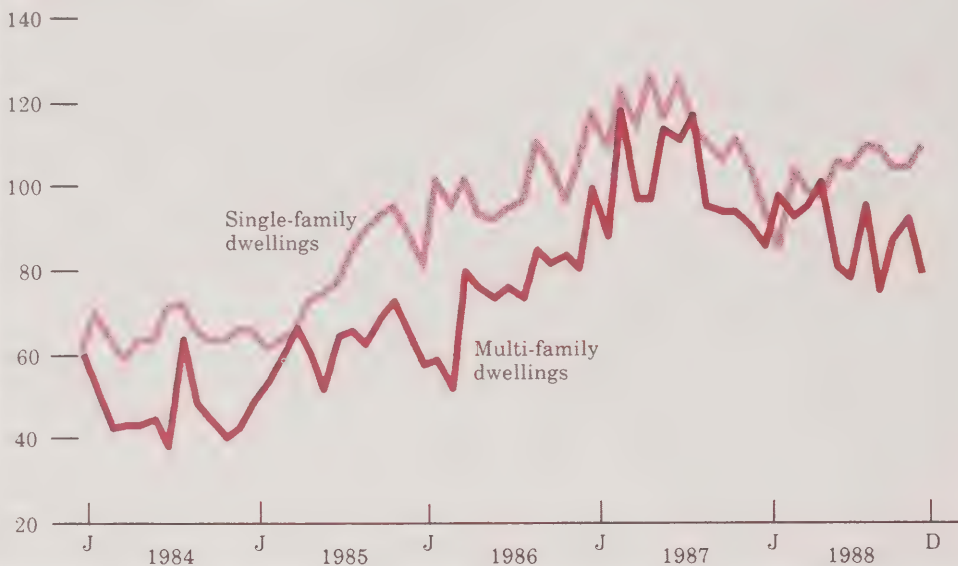
Vigorous expansion in residential construction of almost 16% allowed an increase in consumer durable household purchases in 1987. The housing boom, which peaked in the third quarter of the year, raised housing starts to 263,000 units between July and September, a level not seen since the first quarter of 1978. However, fourth quarter starts fell 13% to 228,000 units, with rising interest rates and prices. In the second quarter, Ontario and Quebec led the housing boom with starts registering quarterly gains of 80% and 90%, respectively.

While housing prices were rising rapidly on a national level, with a peak year over year increase of nearly 16%, Toronto housing prices were rising at double the rate. In May of 1987, Toronto housing prices were up 33.6% over a year earlier. Heading into 1988, however, the rate of increases in housing prices slowed, averaging closer to 10% Canada wide, and near 15% in Toronto.

Chart 23.1

Housing starts in urban centres

Thousands of units



The upsurge in residential construction was primarily the result of the overall Canadian economic condition in 1987. Demand for housing had been on the rise since the 1981-82 recession, and interest and mortgage rates had been steadily declining for several years; the unemployment rate had also been steadily declining. Inflation, as measured by the Consumer Price Index (CPI), remained relatively stable and consumer confidence was at an all time high. The construction boom, however, did begin to slow in the fourth quarter with the subsequent rise in housing prices and mortgage rates. Nonetheless, residential construction was the strongest growing component of GDP for 1987; it alone accounted for 6.9% of total output, up from a level of 5.0% in 1982.

23.1.3 Federal finances

The federal government deficit marked its third year of decline in 1987, falling a further 3%, year over year, to a level reminiscent of 1982. The year's lower deficit of \$23 billion, on a national accounts basis, largely reflected steady growth in government revenues and deceleration in government spending. In terms of the size of the economy, the federal deficit had contracted from 6.8% of GDP in 1984 to 4.2% in 1987.

Total current federal expenditures grew 6.1% over the year. The increase, mainly attributable to the 6.3% rise in interest payments on the public debt, was further fuelled by the rebound in transfer payments to business and non-residents. The rising stock of public debt more than offset the effect of a lower annual rate of interest, and interest payments on the debt rose to a new high of almost \$28 billion, an amount higher than the annual deficit. Government spending on goods and services, however, continued to decelerate for the third consecutive year, increasing a slight 1.6% over 1986.

Personal income taxes and indirect taxes, like import and excise duties, continued to account for the majority of growth in federal revenues. Rising direct taxes from persons, in 1987, was a reflection of higher tax brackets, the lower unemployment rate and the increasing labour force. However, corporate income taxes, following a decline in 1986, remained flat.

23.1.4 Business fixed investment

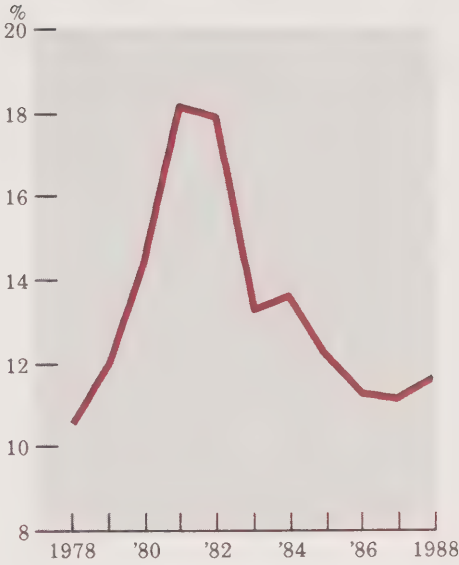
Almost doubling its pace from 1986, real business fixed investment jumped over 11% in 1987. The strongest growing component, residential construction, was closely followed by investment in

Chart 23.2
Selected economic indicators

Prime interest rate



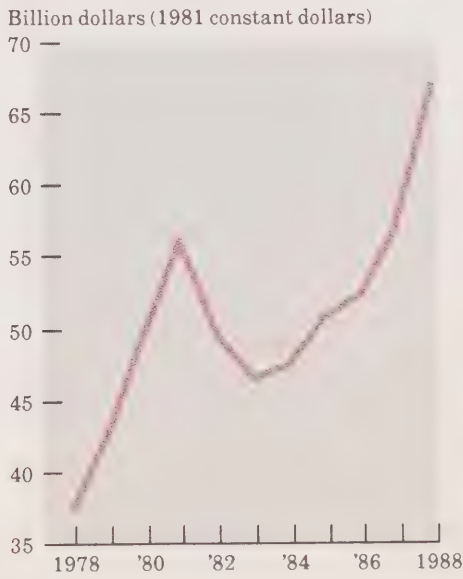
Mortgage interest rate



Consumer price index



Business investment



machinery and equipment which was up 14.6%, while non-residential construction peaked in the third quarter at a level of \$23 billion, growing at a rate not seen since 1981-82.

The strength in investment, in machinery and equipment, primarily resulted from the rising demand for office equipment, increasing moves to modernization in the manufacturing sector, and a recovery in the oil and gas sector. Capacity utilization rates continued to tighten in 1987, accounting for some of the increase in non-residential construction. The bulk of the gain, however, was focused in the energy sector as favorable interest rates, government incentive programs, and a recovery in oil prices spurred a recovery in oil and gas exploration.

23.1.5 International trade

Canada's major trading partner has long been the United States. In 1987, Canada's merchandise exports to the US, on a balance-of-payments basis, accounted for 77% of Canada's total merchandise exports, while imports from the US constituted 69% of total merchandise imports. Although the growth of Canadian merchandise exports to the US had been slowing for three years, strengthening US demand for natural gas, combined with a slowdown in US domestic production and an appreciating Canadian currency, reversed the trend. Merchandise exports to the US, valued at \$96.6 billion, rose 3.5% over 1986, while the value of Canadian merchandise imports from the US continued to decelerate post 1984. Merchandise imports from the US, valued at \$79.2 billion, grew 3.6%, following a gain of 4.1% in 1986.

Overall, total 1987 merchandise trade imports, with all countries, of \$115 billion and exports of \$126 billion resulted in an \$11 billion surplus in merchandise trade for Canada, up almost 12% from 1986. Deficits, however, continued to increase in the non-merchandise trade sector (\$21.6 billion), the service transactions sector (\$7.0 billion) and the investment income sector (\$16.6 billion) — increases of 6.1%, 34.7%, and 0.03%, respectively. Consequently, Canada's 1987 total current account deficit remained unchanged from 1986 at \$10.6 billion.

Real net exports fell 17% to \$11.5 billion for the year, while real imports increased 8.6% and jumped a record 8.2% in the last quarter alone. Although the surge occurred across all major aggregates of imports, automobiles and parts and other manufactured products led the increase, rising 20% and 11%, respectively, in the quarter. Increased inflows of chemicals, primary metals,

petroleum and coal products were also notable. Real exports, as well, increased sharply in the fourth quarter, posting their strongest quarterly gain in four years (up 4.4%); and rose 5.9% over the entire year. Natural gas, wheat and barley were the major outflows, along with coal, minerals, automobiles and parts.

23.1.6 Employment and the labour force

Canada's unemployment rate fell to 8.9% in 1987, marking its fourth consecutive year of decline from the high of 11.9% in 1983. Although unemployment has not been below 9% since 1981, the total level of employment in the country has steadily increased since 1982, and has gained almost 3% every year since 1983.

Total employment growth in the service-producing industries was 3.1%, in 1987, while expansion in the goods-producing industries was 2%. Services have consistently led employment growth in Canada since 1984.

The community, business and personal services sector, the largest employer in the service industries, accounted for 47% of the workers in 1987. Hiring was the most robust, however, in the finance, insurance and real estate sector of the service industry, where the level of employees jumped 6.2% at the national level. In Ontario and Quebec gains of 10% and 8.8%, respectively, in this sector, compensated for the 4.3% drop that occurred in British Columbia.

In the goods-producing industries, manufacturing employed the majority of workers with 57% of the total employed. In 1987, employment in manufacturing grew 1.4%, down from the 1.7% gain in 1986. The number of agricultural workers declined for the second year with drops of 7.1% and 4.1% in Quebec and Ontario, respectively, overcoming slight gains in both the Atlantic provinces and British Columbia.

Employment boomed in the construction industry, after the first quarter of 1987, gaining 8.4% for the year, following an increase of 6.9% in 1986. Quebec led the expansion in this sector, with the number of construction workers up over 13%.

Overall, Canada's total labour force increased by 2% in 1987. The participation rate, that is the labour force as a percentage of the population aged 15 years and older, reached a high of 66.2%, while labour income jumped 7.7%.

23.1.7 Inflation

The Consumer Price Index (CPI) measured the annual rate of inflation for the year at 4.4%, up slightly from the 4.1% growth a year earlier. The

inflation rate in 1987 marked the second year of increase which followed four previous years of steady decline.

Reclassified in terms of goods and services, the price index rose 4.1% for the year. The rate of increase in the index for total services dropped year over year, as did that of durable goods. Both semi- and non-durable goods price indexes, however, accelerated.

The industry product price index rose 2.7% in 1987, despite the 4.9% decline in the petroleum and coal products component. Primary metal products, spurred by improving world demand and tight supply for copper and nickel, jumped 5.4%. In addition, the short supply of chemical products led to an increase in their price index, while the cost of transportation equipment fell slightly, primarily the result of weak automobile prices. Production of motor vehicles in Canada dropped 11.4% in 1987, after falling 4.4% in 1986.

23.1.8 Goods-producing and service-producing industries

Gross Domestic Product at factor cost in 1981 prices rose 4.0% in 1987, up from 3.2% the year earlier. Goods-producing industries, which accounted for 40% of Canada's total output, expanded 4.4%. The service-producing industries grew at the slower pace of 3.7% for the year.

The strongest gains in the goods-producing industries occurred in the industries of fishing and forestry (7.4%), construction (5.6%) and manufacturing (5.3%). Growth in the mining industry (4.5%) rebounded in the wake of rising worldwide demand and increasing prices for copper, zinc and lead. Real output in construction slowed, however, in the latter half of the year as the housing boom slackened. Quarterly growth rates of 3.8% and 2.4% for the first and second quarters of 1987 slowed to 2.2% and 2.1% for the third and fourth. Forestry output, as well, slowed as construction contracted.

The largest of the goods-producing industries has historically been manufacturing. In 1987, this industry alone accounted for 46% of the output in the goods-producing industries. Overall, the strength in manufacturing throughout the year was attributable to wood products, pulp and paper, fabricated metals, primary metals and electrical products. A resurgence in demand for transportation equipment in the last quarter of the year, however, fuelled the strong 3.4% growth for that period. Concern that the build-up in the durable goods inventory during the year would slow the output in the manufacturing sector proved unfounded as shipments rose in accordance, resulting in a low ratio of inventories to shipments.

In the service-producing industries the strongest output gains occurred in the trade and the finance, insurance and real estate sectors, up 7.4% and 5.3%, respectively, for 1987. Retail sales jumped 9.7% in the year and the strength of the volume in the fourth quarter revealed the high level of consumer confidence prevalent in the economy, despite the October stock market crash. Sales in the fourth quarter, up 3.1%, were 12% higher than levels a year earlier. Sales of new motor vehicles, which alone accounted for 21% of all retail sales, increased 20% in the fourth quarter, year over year. Department store sales, however, gained only 1.6% in the same time period over 1986.

23.2 Summary, 1987

Overall, the Canadian economy in 1987 was vigorous. Domestic demand, fuelled by strong household expenditure and business investment, led the growth. Employment expanded while the unemployment rate dropped to a six-year low. Inflation was moderate and buoyant external demand maintained growth in exports. Canada emerged from its sixth year of expansion with real output of 4%, up from 1986 growth of 3.2%. Meanwhile, 1988 emerged with steady growth in both the first and second quarters.

Source

International and Financial Economics Division, Statistics Canada. Compiled by Philip Cross.

FOR FURTHER READING

Selected publications from Statistics Canada

- Canadian Social Trends, quarterly. 11-008
- Canadian Economic Observer, monthly. 11-010
- Canadian Economic Observer: Historical Statistical Supplement, annual. 11-210
- National Income and Expenditure Accounts, the Annual Estimates, annual. 13-201
- Income Distributions by Size in Canada, annual. 13-207
- The Distribution of Wealth in Canada, 1984, 85 p., 1986. 13-580
- Charting Canadian Incomes, 1951-1981, 28 p., 1984. 13-581
- Aggregate Productivity Measures, annual. 14-201. Discontinued, last issue 1984.
- Gross Domestic Product by Industry, monthly. 15-001
- Provincial Gross Domestic Product by Industry, annual. 15-203
- Seasonal Variations in the Canadian Economy: Retail Trade, 160 p., 1985. 16-502
- Fixed Capital Flows and Stocks, annual. 13-211. Discontinued, last issue 1987.
- Financial Flow and National Balance Sheet Accounts, annual. 13-214
- The Input-Output Structure of the Canadian Economy in Constant Prices, annual. 15-202

More information about these publications is available from Statistics Canada. See Appendix F for a complete list of Statistics Canada offices.

TABLES

.. not available
 ... not appropriate or not applicable
 — nil or zero
 -- too small to be expressed

e estimate
 p preliminary
 r revised
 certain tables may not add due to rounding

23.1 Income and expenditure aggregates in 1981 dollars

Year	Percentage growth rates							
	Personal expenditure	Government current expenditure	Residential construction	Non-residential construction	Machinery and equipment	Exports	Imports	Gross domestic expenditure
1980	2.2	2.8	-5.4	10.7	21.3	2.7	4.9	1.5
1981	2.3	2.5	6.6	8.6	18.1	4.4	8.5	3.7
1982 ^r	-2.6	2.4	-16.3	-8.9	-14.0	-2.2	-15.2	-3.2
1983 ^r	3.4	1.4	17.0	-8.5	-4.1	6.4	9.0	3.2
1984 ^r	4.6	1.2	0.5	-1.8	5.5	17.7	17.1	6.3
1985 ^r	5.4	2.7	9.8	5.1	8.9	6.0	8.4	4.6
1986	4.3	1.2	13.3	-5.4	10.6	4.1	7.3	3.2
1987	4.7	1.6	15.7	1.0	14.6	5.9	8.6	4.0

23.2 Canada's Gross Domestic Product at factor cost, by industry¹, 1970, 1980, 1984 and 1987

Industry	1970 ^r	1980 ^r	1984	1987
Agriculture	4.2	3.2	2.8	3.0
Fishing	0.3	0.2	0.2	0.2
Forestry	0.9	0.8	0.7	0.8
Mining	9.7	6.4	6.6	5.8
Manufacturing	27.8	25.7	18.3	25.9
Construction	7.6	7.3	4.7	6.9
Trade	11.6	11.1	10.2	12.0
Finance, insurance and real estate	12.5	14.1	14.3	14.7
Transportation, communications and utilities	9.6	10.9	12.7	10.9
Community, business and personal services	20.0	20.5	21.4	19.9
Public administration	7.5	6.9	8.1	6.2

¹ Based on per cent of Canada's GDP.

23.3 Canada's Gross Domestic Product at market prices¹, 1970, 1980, 1984 and 1986

Province or territory	1970	1980 ^r	1984	1986
Newfoundland	1.4	1.3	1.4	1.3
Prince Edward Island	0.3	0.3	0.3	0.3
Nova Scotia	2.6	2.0	2.4	2.5
New Brunswick	1.9	1.6	1.8	1.9
Quebec	25.3	23.3	22.3	23.5
Ontario	41.8	37.1	38.4	40.3
Manitoba	4.2	3.6	3.8	3.8
Saskatchewan	3.5	4.0	4.0	3.4
Alberta	8.3	13.9	13.7	11.5
British Columbia	10.5	12.3	11.4	11.1
Yukon and Northwest Territories	0.3	0.4	0.4	0.4

¹ Based on per cent of Canada's GDP.

23.4 Credit and exchange market figures¹

Year	Prime rate	91-day treasury bill rate	Long-term Canada bond rate	Conventional mortgage rate	Canadian dollar in US cents
1980	14.25	12.71	12.48	14.32	85.54
1981	19.29	17.78	15.22	18.15	83.42
1982	15.81	13.83	14.26	17.89	81.08
1983	11.17	9.32	11.79	13.29	81.14
1984	12.06	11.11	12.75	13.61	77.25
1985	10.58	9.46	11.04	12.18	73.24
1986	10.52	9.00	9.52	11.22	71.97
1987	9.52	8.15	9.95	11.14	75.43

¹ Interest rates and exchange rate are annual averages of monthly levels.

23.5 Income and expenditure aggregates in 1981 dollars, quarterly percentage growth rates

Year and quarter	Personal expenditure	Government current expenditure	Residential construction	Non-residential construction	Machinery and equipment	Exports	Imports	Gross domestic expenditure
1983 ^T								
I	1.8	-1.5	5.5	-2.3	-1.5	2.3	3.4	1.7
II	1.2	1.0	11.3	-1.7	-0.3	6.0	2.5	2.3
III	1.7	1.2	0.5	-0.8	3.9	0.9	8.9	1.6
IV	0.8	-0.7	-5.0	2.2	3.7	8.8	10.2	0.8
1984 ^T								
I	1.4	0.6	0.5	-1.6	0.6	2.5	2.9	1.6
II	1.0	-0.2	-0.4	-0.8	-0.8	4.6	1.1	2.3
III	0.3	0.5	2.3	1.0	1.2	4.5	1.7	1.1
IV	1.8	0.8	0.9	-3.7	1.0	0.4	-2.0	1.2
1985 ^T								
I	1.2	1.7	-0.4	2.3	2.2	1.6	3.4	1.1
II	1.3	-0.1	3.7	8.6	1.5	0.4	5.0	0.6
III	2.1	—	6.9	-0.5	6.1	-1.5	2.7	1.0
IV	1.1	1.3	7.3	-2.9	4.3	4.8	0.5	2.1
1986								
I	0.4	-0.2	-1.1	4.1	0.8	-0.5	3.4	0.3
II	1.2	-0.1	3.9	-8.4	1.5	0.3	-1.2	0.8
III	1.5	0.9	1.5	-4.8	2.6	2.3	3.3	0.1
IV	-0.1	0.4	2.3	-0.8	2.4	1.2	0.7	0.1
1987								
I	1.2	0.9	5.3	-2.5	3.2	2.2	1.8	1.6
II	1.9	-0.3	6.0	5.9	4.0	-0.6	2.0	1.3
III	1.2	0.2	3.7	7.1	4.4	1.7	2.2	1.5
IV	1.6	0.8	-1.1	4.2	7.8	4.4	8.2	1.6

23.6 Industry product price index annual inflation rate¹

Year	Food and beverages	Textiles	Wood	Furniture and fixtures	Paper	Primary metals
1982	5.1	-2.8	-0.5	9.0	3.3	0.5
1983	3.3	0.9	10.3	4.2	-3.3	2.8
1984	5.5	3.0	-2.0	4.4	11.3	3.3
1985	1.4	1.2	2.0	2.8	1.2	-1.7
1986	4.3	0.3	8.4	4.0	4.2	2.2
1987	3.0	2.4	2.6	6.7	9.4	5.4
	Metal fabricating	Transportation equipment	Petroleum and coal	Chemical	Non-metallic minerals	Total
1982	7.5	8.7	15.7	5.6	12.6	6.7
1983	3.0	4.4	5.3	3.4	4.2	3.5
1984	4.0	5.6	4.4	4.2	1.7	4.5
1985	3.4	6.8	5.0	1.7	3.2	2.8
1986	3.4	4.5	-19.7	1.1	5.2	0.8
1987	3.0	-0.3	-4.9	3.0	3.7	2.7

¹ Annual inflation rates are based on the average of the monthly price levels.

23.7 Consumer price index annual inflation rate¹

Year	Food	Housing	Clothing	Transportation	Health and personal care	Recreation, reading and education	Tobacco and alcohol	All items
1980	10.7	8.1	11.7	12.8	9.9	9.5	11.2	10.2
1981	11.4	12.4	7.1	18.4	10.9	10.1	12.9	12.5
1982	7.2	12.5	5.6	14.1	10.6	8.7	15.5	10.8
1983	3.7	6.8	4.0	5.0	7.0	6.5	12.6	5.8
1984	5.6	3.8	2.5	4.2	3.9	3.4	8.2	4.4
1985	2.9	3.5	2.8	4.8	3.6	4.0	9.5	4.0
1986	5.0	3.0	2.8	3.2	4.2	4.7	11.9	4.1
1987	4.4	4.1	4.2	3.6	5.0	5.4	6.7	4.4

¹ Annual inflation rates are based on the average of the monthly price levels.**23.8 Raw materials price index annual inflation rate¹**

Year	Wood	Ferrous materials	Non-ferrous metals	Coal and petroleum	Animals	Vegetables	Total
1982	-3.8	-3.1	-11.5	20.3	5.4	-12.5	7.5
1983	4.1	1.6	4.3	7.1	-2.3	4.5	4.3
1984	3.5	9.4	-0.8	1.5	5.9	8.1	3.0
1985	0.6	1.7	-5.7	4.7	-1.5	-7.6	1.1
1986	5.0	0.7	3.7	-36.6	5.4	-1.5	-17.7
1987	10.9	-1.4	14.1	8.0	5.1	-5.9	6.4

¹ Annual inflation rates are based on the average of the monthly price levels.**23.9 Employment by industry annual percentage growth rates**

Year	Agriculture	Other primary industry ^f	Manufacturing	Construction	Transportation storage and communication	Trade	Finance	Services	Total
1980	-1.1	7.7	1.9	-3.0	-0.3	1.6	10.3	4.8	3.0
1981	1.2	6.5	0.5	4.3	0.2	2.6	-2.9	5.5	2.8
1982	-4.7	-12.9	-9.1	-8.3	-2.7	-1.9	1.2	0.5	-3.3
1983	3.1	2.1	-2.3	-5.3	-1.7	0.1	0.3	4.2	0.9
1984	-	3.6	4.4	1.1	-2.0	4.3	4.7	1.8	2.5
1985	2.6	0.4	0.6	2.5	3.4	3.7	-0.3	4.7	2.8
1986	-0.9	-1.1	1.7	6.9	2.3	4.0	4.1	3.7	2.9
1987	-1.8	-0.3	1.4	8.4	1.1	1.7	6.2	4.0	2.8

23.10 Unemployment and related statistics

Year	Labour force ¹	Employment ¹	Unemployment rate ²	Participation rate ³
1980	3.0	3.0	7.5	64.1
1981	2.9	2.8	7.5	64.8
1982	0.5	-3.3	11.0	64.1
1983	1.9	0.8	11.9	64.4
1984	1.8	2.5	11.3	64.8
1985	1.9	2.8	10.5	65.2
1986	1.8	2.9	9.6	65.7
1987	2.0	2.8	8.9	66.2

¹ Expressed as annual growth rates.² Unemployment as a percentage of the labour force.³ Labour force as a percentage of the total population 15 years of age and over.

23.11 Personal expenditure in 1981 dollars

Year	Percentage growth rates			
	Durables	Semi-durables	Non-durables	Services
1980	-0.4	0.4	1.4	4.3
1981	2.8	2.5	0.9	2.9
1982 ^f	-12.6	-5.3	-1.7	0.6
1983 ^f	11.9	2.8	—	3.5
1984 ^f	13.3	5.1	1.2	4.0
1985 ^f	13.7	5.3	3.4	4.0
1986	6.0	5.8	1.4	5.1
1987	8.6	4.4	1.9	5.1

23.12 Current account balance

Year	Current dollars (\$'000,000)		
	Merchandise trade	Non-merchandise trade	Total
1980	8,778	-9,908	-1,130
1981	7,292	-13,423	-6,131
1982 ^f	17,654	-14,831	2,824
1983 ^f	17,457	-14,391	3,066
1984 ^f	19,838	-17,143	2,695
1985 ^f	16,400	-18,335	-1,935
1986	9,810	-20,306	-10,496
1987	10,976	-21,552	-10,576

23.13 Merchandise imports by commodity

Year	Percentage growth rates of current dollar levels				
	Crude materials	Fabricated materials	Machinery	Motor vehicles and parts	Food
1980	35.0 ^f	12.6 ^f	14.7 ^f	-10.6	13.7 ^f
1981	9.9 ^f	9.6 ^f	9.5 ^f	18.2	8.3 ^f
1982	-31.3 ^f	-15.9 ^f	-24.1 ^f	-6.9	-6.4 ^f
1983	-18.6 ^f	14.4 ^f	-7.3 ^f	28.0	2.0 ^f
1984	18.5 ^f	17.0 ^f	23.0 ^f	37.2	19.2 ^f
1985 ^f	-0.7	13.1	15.4	20.9	—
1986	-12.9	3.5	12.9	6.5	12.8
1987	10.9	8.2	3.4	-1.1	1.0

23.14 Merchandise exports by commodity

Year	Percentage growth rates of current dollar levels			
	Crude materials	Fabricated materials	Motor vehicles and parts	Food
1980	17.2	20.8	-7.8	37.6 ^f
1981	2.8	4.6	23.8	13.8 ^f
1982	-0.2	-12.4 ^f	24.7	6.3 ^f
1983	-2.9	8.5 ^f	26.5 ^f	2.7 ^f
1984 ^f	17.0	15.8	38.3	-1.3
1985 ^f	11.4	3.7	12.8	-11.6
1986	-20.4	2.8	3.6	1.4
1987	10.4	13.4	-6.4	9.3

Source

23.1 - 23.14 International and Financial Economics Division, Statistics Canada.

APPENDICES

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APPENDIX A

FEDERAL GOVERNMENT DEPARTMENTS, AGENCIES AND CROWN CORPORATIONS

The following list and description of the programs and services provided by federal organizations, including departments, agencies, boards and Crown corporations, has been updated to June 1, 1989.

Agricultural Products Board

Ottawa, Ontario K1A 0C5

Information: Ottawa/Hull (613) 995-5880.

Minister responsible:

Minister of Agriculture

Agricultural Stabilization Board

Ottawa, Ontario K1A 0C5

Information: Ottawa/Hull (613) 995-5880.

The Agricultural Stabilization Board's objective is to stabilize the prices of agricultural commodities in order to assist the industry of agriculture to realize fair returns for its labour and investment, and to maintain a fair relationship between prices received by farmers and the cost of goods and services that they buy, thus providing farmers with a fair share of the national income.

Minister responsible:

Minister of Agriculture

Agriculture Canada

Head office

Sir John Carling Building
Central Experimental Farm
930 Carling Avenue
Ottawa, Ontario K1A 0C5

Regional, district and branch offices: throughout Canada.

Experimental farms and research stations: throughout Canada.

Information: Ottawa/Hull (613) 995-5222.

The mandate of the Department of Agriculture is to promote the growth, stability and competitiveness of the agri-food and forestry sectors through policies, programs and services most appropriately provided by the federal government to assist the sectors to maximize their real contribution to the Canadian economy. The Department's responsibilities embrace most aspects of the agricultural industry. It carries out research into the physical and economic problems of agriculture; inspects and grades farm products; and carries out programs aimed at keeping our crops and livestock safe from disease and insect pests. The Department enforces laws governing the sales of feed, fertilizers and pesticides; and assists farmers through measures such as price stabilization and crop insurance. It also provides consumer-oriented food advisory services, supervises race track betting and protects and manages Canada's forest resources.

Minister responsible:

Minister of Agriculture

Atomic Energy Control Board

Head office

Martel Building
270 Albert Street
(PO Box 1046)

Ottawa, Ontario K1P 5S9

Regional offices: Calgary, Elliot Lake, Mississauga, Montreal.

Information: Ottawa/Hull (613) 995-5894.

The AECEB is the federal regulatory agency responsible for the control of health, safety, and national and international security aspects of prescribed nuclear energy substances and items, and nuclear facilities. The AECEB is also responsible for the administration of the Nuclear Liability Act.

Minister responsible:

Minister of Energy, Mines and Resources

Atomic Energy of Canada Limited

Corporate office
344 Slater Street
Ottawa, Ontario K1A 0S4

Regional offices: Pinawa, Mississauga, Chalk River, Ottawa, Kanata, Montreal, Port Hawkesbury, Bécancour, Glace Bay, Saskatoon.
Information: Ottawa/Hull (613) 237-3270.

Atomic Energy of Canada Limited is responsible for the research and development of peaceful uses of nuclear energy, including the development of nuclear power systems and the application of radio-isotopes and radiation in medicine and industry.

Minister responsible:

Minister of Energy, Mines and Resources

Auditor General of Canada (Office of the)

Head office
C.D. Howe Building
240 Sparks Street
Ottawa, Ontario K1A 0G6

Regional offices: Vancouver, Edmonton, Regina, Winnipeg, Montreal, Halifax.

Information: Ottawa/Hull (613) 995-3766.

The Office of the Auditor General of Canada is responsible for examining the Public Accounts of Canada, including those relating to the Consolidated Revenue Fund, public property and various Crown corporations. The Auditor General performs comprehensive audits of departments and agencies and special examinations of certain Crown corporations, and conducts government-wide studies of issues involving the management of financial, physical and human resources of the federal government. The Auditor General reports annually to the House of Commons but may make a special report to the House on any matter that he/she believes should not be deferred until the annual report.

The Auditor General reports directly to Parliament.

Bank of Canada

234 Wellington Street
Ottawa, Ontario K1A 0G9

Bank of Canada agencies: Vancouver, Calgary, Regina, Winnipeg, Toronto, Ottawa, Montreal, Saint John, Halifax.

Information: Ottawa/Hull (613) 782-8111.

The Bank of Canada formulates and implements monetary policy and acts as fiscal agent to the

Government of Canada. The Bank of Canada Act gives the Bank the sole right to issue notes intended for circulation in Canada.

Minister responsible:

Minister of Finance

The Canada Council

Head office
99 Metcalfe Street
(PO Box 1047)
Ottawa, Ontario K1P 5V8
Regional office: Moncton.

Information: Ottawa/Hull (613) 598-4365 or 598-4366 (station to station collect calls accepted).

The Canada Council was created by an Act of Parliament in 1957. Under the terms of the Canada Council Act, the objects of the Council are to foster and promote the study and enjoyment of, and the production of works in, the arts. To fulfil this mandate, the Council offers a broad range of grants and services to artists and other arts professionals and to arts organizations. The Council also maintains the secretariat for the Canadian Commission for UNESCO, administers the Killam Program of scholarly awards and prizes, and offers a number of other prestigious awards.

The Canada Council reports to Parliament through the Minister of Communications.

Canada Deposit Insurance Corporation

Head office
320 Queen Street, 22nd Floor
(PO Box 2340, Station D)
Ottawa, Ontario K1P 5W5
Regional office: Toronto.

Information: Ottawa/Hull (613) 996-2081;
Toronto (416) 973-3887, 1-800-267-1999.

The Canada Deposit Insurance Corporation (CDIC) was established in 1967 under the Canada Deposit Insurance Corporation Act. The objectives of CDIC are to provide insurance against the loss of part or all of deposits made with members, to be instrumental in the promotion of sound business and financial practices for member institutions, and to promote and otherwise contribute to the stability and competitiveness of the financial system in Canada. These objectives are to be pursued for the benefit of depositors and in a manner so as to minimize the exposure of the Corporation to loss. CDIC has the power to provide loans of last resort to member institutions and to Canadian-controlled Sales Finance Companies

and it may also grant short-term loans, for liquidity purposes, to co-operative credit societies and provincially created corporations that provide money to credit unions.

Minister responsible:
Minister of Finance

Canada Development Investment Corporation

Head office
One First Canadian Place, Suite 4520
(PO Box 138)
Toronto, Ontario M5X 1A4
Information: Toronto (416) 864-0333.

The Canada Development Investment Corporation is a federal Crown corporation which is responsible for the divestiture of corporate interests of the Crown. It also manages federal shares in mixed ownership enterprises for which, divestiture is the ultimate objective, but which may require commercial strengthening before the federal shares can be sold. In certain cases where the divestiture is in stages, the CDIC manages remaining federal corporate interests directly or on behalf of the government, and the management of such interests is governed by commercial decisions.

Minister responsible:
Minister of State, Office of Privatization and
Regulatory Affairs

Canada Harbour Place Corporation

World Trade Centre
999 Canada Place
Suite 690
Vancouver, British Columbia V6C 3C1
Information: Vancouver (604) 682-7200.

The Canada Harbour Place Corporation is a Crown corporation that was established in June 1982 by federal-provincial agreement to design and construct Canada Place in Vancouver. The project includes the Vancouver Trade and Convention Centre (converted from space used for the Canada Pavilion at Expo' 86); the Pan Pacific Vancouver Hotel, built for Tokyu Canada Corporation; the World Trade Centre; and a cruise ship facility, built for the Vancouver Ports Corporation (Canada Ports Corporation).

Minister responsible:
Minister of Transport

Canada Labour Relations Board

Head office
C.D. Howe Building
4th Floor West
240 Sparks Street
Ottawa, Ontario K1A 0X8
Regional offices: Vancouver, Winnipeg, Toronto,
Montreal, Dartmouth.
Information: Ottawa/Hull (613) 996-9466.

The Canada Labour Relations Board is an adjudicative, quasi-judicial, administrative tribunal with statutory powers and functions deriving from Part IV and Part V of the Canada Labour Code. The Board's jurisdiction in industrial relations and safety covers federal works, undertakings and businesses, including all forms of interprovincial or international transportation of goods or passengers; broadcasting; communications; long-shoring; grain-handling; banking; uranium mining; and certain Crown corporations. The Board's responsibility is twofold: to grant, modify and terminate bargaining rights; and to resolve, through mediation or adjudication, complaints of unfair labour practice concerning violations of the Canada Labour Code by trade unions or employers. On finding a violation of the Code, the Board is empowered to order reinstatement and compensation where appropriate. It is also empowered, upon application, to order employees to return to work in cases of illegal work stoppages and to attempt to resolve or adjudicate, where necessary, various other types of disputes that may arise under Part V of the Code. In the Yukon and Northwest Territories, the Board's activities also include those that would normally fall under provincial jurisdiction.

Minister responsible:
Minister of Labour

Canada Lands Company (Mirabel) Limited

9850 Belle-Rivière Street
PO Box 180, Ste-Scholastique
Mirabel, Quebec J0N 1S0
Information: Quebec (514) 258-2451.

Canada Lands Company (Le Vieux Port de Montreal) Limited

333, Commune Street West
Montreal, Quebec H2Y 2E2
Information: Montreal (514) 283-5256.

Canada Lands Company (Vieux Port de Québec) Inc.

112 Dalhousie Street
Suite 300
(PO Box 95, Station B)
Quebec, Quebec G1K 7A1
Information: Quebec (418) 692-0043.

The Canada Lands Company Limited has, by virtue of its letters patent of incorporation, the power to acquire, purchase, lease, hold, improve, manage, exchange, sell, turn to account or otherwise deal in or dispose of real or personal property or an interest therein. However, it has been used only to hold certain leasehold interests in one property in London, England, and two properties on Indian reserves in Canada. The Corporation is also the sole or majority shareholder in four subsidiary corporations.

The Canada Lands Company Limited has no staff and no budget. Its three directors are employees of Public Works Canada.

Minister responsible:
Minister of Public Works

Canada Mortgage and Housing Corporation

Head office
682 Montreal Road
Ottawa, Ontario K1A 0P7
Regional offices: Vancouver, Saskatoon, Toronto (Willowdale), Montreal, Saint John.
Local offices: throughout Canada.
Information: Ottawa/Hull (613) 748-2000.

CMHC's purpose, as embodied in the National Housing Act, is to promote the construction of new houses, the repair and the modernization of existing housing, and the improvement of housing and living conditions. It is also authorized to insure mortgage loans made by approved lenders for new and existing homeowner housing, new and existing rental housing, and dwellings built by co-operative and non-profit associations. In addition, the CMHC, through the Act, assists in furthering government objectives such as economic growth, job creation and energy conservation.

Minister responsible:
Minister of Public Works

Canada Museums Construction Corporation Inc.

55 Murray Street
Ottawa, Ontario K1N 5M3
(Mail: PO Box 395, Station A,
Ottawa, Ontario K1N 8V4)

Information: Ottawa/Hull (613) 230-4555.

The Canada Museums Construction Corporation was created to construct, in the National Capital Region, new buildings for the National Gallery of Canada and the Canadian Museum of Civilization.

Minister responsible:
Minister of Public Works

Canada Oil and Gas Lands Administration

Headquarters
Tower B, 15th Floor
355 River Road
Ottawa, Ontario K1A 0E4
Regional offices: Yellowknife, Calgary, Halifax.
Information: Ottawa/Hull (613) 993-3760.

The Canada Oil and Gas Lands Administration (COGLA) was established in 1981 by a memorandum of understanding between the Minister of Energy, Mines and Resources and the Minister of Indian Affairs and Northern Development.

COGLA is the Government of Canada's principal contact with the oil and gas industry in matters relating to the regulation of oil and gas activity on Canada's frontier lands. These lands include the Yukon, the Northwest Territories, Hudson Bay and most of the country's offshore areas. The Canada-Newfoundland Offshore Petroleum Board has operational responsibility for the Newfoundland and Labrador offshore. A new Canada-Nova Scotia Offshore Oil and Gas Board with operational responsibility for the Nova Scotia offshore has been established.

COGLA's prime responsibility is the regulation of the exploration for and the development and production of oil and gas on frontier lands in a manner that promotes safety of the worker, effective resource conservation, protection of the environment, and full and fair access by Canadians to the benefits arising from activities related to hydrocarbon resources.

Ministers responsible:
Minister of Energy, Mines and Resources
Minister of Indian Affairs and Northern Development

Canada Ports Corporation

National office
99 Metcalfe Street
Ottawa, Ontario K1A 0N6
Ports Canada ports: Vancouver, Prince Rupert, Montreal, Quebec, Halifax, St. John's.
Canada Ports Corporation ports: Churchill, Port Colborne, Prescott, Chicoutimi, Trois-Rivières, Sept-Îles, Belledune, Saint John.

Information: Ottawa/Hull (613) 957-6787 (95-PORTS).

Port administration and policy: Canada Ports Corporation operates a federal system of ports on a decentralized basis. Six of the ports, in Prince Rupert, Vancouver, Montreal, Quebec, Halifax and St. John's, have local port corporations that function with a high degree of autonomy and in accordance with common commercial principles. The other ports, directly administered by the Canada Ports Corporation, are in Churchill, Port Colborne, Prescott, Chicoutimi, Trois-Rivières, Sept-Îles, Belledune and Saint John.

The Canada Ports Corporation, which handles nearly half of all Canadian port traffic and more than 95% of container traffic, is also responsible for implementation of the national port policy. The policy provides for the services necessary to Canada's international shipping trade at national, regional and local levels.

Minister responsible:

Minister of Transport

Canada Post Corporation

Head office

Sir Alexander Campbell Building
Confederation Heights
Ottawa, Ontario K1A 0B1

Divisional offices: Vancouver, Edmonton, Winnipeg, London, Toronto, Ottawa, Montreal, Quebec, Halifax.

Information: Ottawa/Hull (613) 723-7331.

Canada Post Corporation collects, sorts and delivers more than 8 billion messages and parcels yearly within Canada, and handles mail to and from more than 165 other countries around the world.

Minister responsible:

Minister of Industry, Science and Technology

Canadian Advisory Council on the Status of Women

110 O'Connor Street
9th Floor

(PO Box 1541, Station B)
Ottawa, Ontario K1P 5R5

Regional offices: Calgary, Montreal.

Information: Ottawa/Hull (613) 992-4975.

The Canadian Advisory Council on the Status of Women was established in 1973 and is responsible for making recommendations for change in

legislation and other measures to improve the status of women through the Minister responsible for the Status of Women. The Council regularly liaises with national women's groups and provincial advisory councils on the status of women.

Minister responsible:

Minister responsible for the Status of Women

Canadian Aviation Safety Board

Head office

Place du Centre
200 Promenade du Portage
4th Floor,
Hull, Quebec

(Mail: PO Box 9120, Alta Vista Terminal,
Ottawa, Ontario K1G 3T8)

Regional offices: Vancouver, Edmonton, Winnipeg, Toronto (Willowdale), Montreal (Dorval), Moncton.

Information: Ottawa/Hull (819) 994-3741.

Established in 1984, the Canadian Aviation Safety Board is an independent body whose objective is the advancement of aviation safety. The Board investigates aviation occurrences, reports publicly on its findings and makes recommendations designed to eliminate or reduce safety deficiencies. The Canadian Aviation Safety Board reports to Parliament through the Minister of Transport.

Canadian Broadcasting Corporation

Head office

1500 Bronson Avenue
(PO Box 8478)
Ottawa, Ontario K1G 3J5

Headquarters (English networks): Toronto;
(French networks): Montreal; (International): Montreal.

Regional offices: (English): Vancouver, Edmonton, Regina, Winnipeg, Toronto, Ottawa (including Northern Service), Montreal, Halifax, St. John's; (French): Vancouver, Edmonton, Regina, Winnipeg, Toronto, Montreal, Quebec, Rimouski (for Eastern Quebec), Moncton.

Local offices: throughout Canada.

Information: Ottawa/Hull (613) 724-1200.

The CBC is a publicly-owned corporation established by an act of the Canadian Parliament to provide the national broadcasting service in Canada.

The CBC reports to Parliament through the Minister of Communications.

Canadian Centre for Occupational Health and Safety

250 Main Street East

Hamilton, Ontario L8N 1H6

Information: Hamilton (416) 572-2981 or toll-free 1-800-263-8276.

The Centre promotes healthier and safer places of work in Canada by responding to enquiries from people interested in occupational health and safety. It is federally funded, and governed by a Council of Governors representing government (federal, provincial and territorial), labour and employers. The Centre gathers, analyzes, interprets and disseminates occupational health and safety information through publications, responses to inquiries, creation of computer data bases and access to these data bases and acquired international data bases through a national network of connected organizations. It provides its services free of charge in English and French; the identity of inquirers is kept confidential.

Minister responsible:

Minister of Labour

Canadian Commercial Corporation

50 O'Connor Street, 11th Floor

Ottawa, Ontario K1A 0S6

Information: Ottawa (613) 996-0034.

Export sales: by serving as prime contractor in government-to-government sales transactions, the Corporation facilitates the export of a wide range of goods and services from Canadian sources. In response to requests by foreign governments and international agencies for individual products or services, the Canadian Commercial Corporation (CCC) identifies Canadian firms capable of meeting the customer's requirements, executes prime as well as back-to-back contracts, and follows through with the contract management, inspection, acceptance and payment aspects of each sale.

Minister responsible:

Minister for International Trade

Canadian Commission for UNESCO

99 Metcalfe Street

(PO Box 1047)

Ottawa, Ontario K1P 5V8

Information: Ottawa/Hull (613) 598-4325.

The Commission provides liaison with governments, organizations, institutions and individuals

in Canada that are interested in the activities of the United Nations Educational, Scientific and Cultural Organization. The Commission co-operates with the UNESCO Secretariat in Paris and with national commissions in other member states in implementing UNESCO programs, and advises the Canadian government through the Department of External Affairs on all matters relating to UNESCO. The Commission publishes a *Bulletin* four times a year and a series of *Occasional Papers* on specific topics.

The Canadian Commission for UNESCO is an agency of the Canada Council and UNESCO.

Canadian Cultural Property Export Review Board

c/o Communications Canada

Cultural Affairs, Room 500

300 Slater Street

Ottawa, Ontario K1A 0C8

Information: Ottawa/Hull (613) 990-4161.

The Review Board is responsible for preserving in Canada significant examples of Canadian heritage in movable cultural property, reviewing applications for export permits, making determinations on fair cash offers to purchase and making determinations for the purposes of the Income Tax Act. It also provides advice to the Minister of Communications on matters affecting the preservation in Canada of the heritage in movable cultural property. In particular, it recommends to the Minister, pursuant to Section 29 of the Act, grants and loans to designated institutions and public authorities in Canada for the purchase of objects for which permits have been refused under the Act, or for the purchase of cultural property outside Canada that is related to the national heritage. The grants and loans are made out of monies appropriated annually by Parliament.

Minister responsible:

Minister of Communications

Canadian Dairy Commission

Pebb Building

2197 Riverside Drive

Ottawa, Ontario K1A 0Z2

Information: Ottawa/Hull (613) 998-9490.

The Commission administers a national dairy policy whose objective is to achieve a healthy, viable dairy industry. It aims to provide efficient milk and cream producers with the opportunity

of obtaining a fair return for their labour and investment, and to provide consumers with a continuous and adequate supply of high-quality dairy products.

Minister responsible:
Minister of Agriculture

Canadian General Standards Board

Phase III
9C1 Place du Portage
Hull, Quebec
(Mail: Ottawa, Ontario K1A 1G6)
Information: Ottawa/Hull (819) 956-0432.

The Canadian General Standards Board, by means of a voluntary consensus process, provides standards and certification-listing programs covering various products, services and systems, to all levels of government and the private sector.

Minister responsible:
Minister of Supply and Services

Canadian Government Publishing Centre

45 Sacre Coeur Boulevard
Hull, Quebec K1A 0S7
Information: Ottawa/Hull (819) 997-4962.

The Canadian Government Publishing Centre co-ordinates the publishing activities of departments and agencies of the Government of Canada, with the objective of effectively and efficiently maximizing public awareness of government policies, programs and services. These activities include managing the associated bookstores program which enables Canadians to purchase federal government publications through commercial and university bookstores across Canada. It is equally responsible for the Depository Services Program whereby these publications may be consulted in over 800 public and university libraries throughout the country. The Centre's activities also include a telephone referral service called Reference Canada which enables Canadians nationwide to call the federal government and obtain information on government services and programs, free of charge. It is also responsible for the publication of the *Canada Gazette*, the official medium for informing the Canadian public of all legally binding decisions made by the Government of Canada.

Minister responsible:
Minister of Supply and Services

Canadian Grain Commission

Head office
303 Main Street, Suite 600
Winnipeg, Manitoba R3C 3G8
Regional offices: throughout British Columbia, Alberta, Saskatchewan, Ontario and Quebec.
Information: Winnipeg (204) 983-2770.

The Canadian Grain Commission is responsible for the official inspection and grading of grain, and the establishing of grade specifications and standards. It issues licences to grain elevator operators and grain dealers, supervises bonding of licensees and insurance coverage on grain in licensed elevators, provides registration and documentation services, compiles and publishes grain-handling statistics, maintains a laboratory for basic and applied research relating to cereal grains and oilseeds, and supervises weighing of grain at terminal and transfer elevators. The Commission is also responsible for supervision of trading in grain futures.

Minister responsible:
Minister of Agriculture

Canadian Human Rights Commission

National office
Royal Bank Centre
90 Sparks Street, 4th Floor
Ottawa, Ontario K1A 1E1
Regional offices: Vancouver, Edmonton, Winnipeg, Toronto, Ottawa, Montreal, Halifax.
Information: Ottawa/Hull (613) 995-1151:
Telecommunications Device for the Deaf (TDD) (613) 996-5211. (Collect calls are accepted throughout Canada.)

The Commission's mandate is to foster the principle that every individual should have an equal opportunity to participate in all spheres of Canadian life, consistent with his or her duties and obligations as a member of society.

This mandate is carried out in two ways. First it deals with complaints of discrimination in employment or in the provision of goods, services, facilities or accommodation based on 10 prohibited grounds of discrimination: race, national or ethnic origin, colour, religion, age, sex, marital status, family status, disability, or conviction of an offence for which a pardon has been granted. Its jurisdiction includes federal government departments and agencies, Crown corporations and institutions such as chartered banks, airlines, inter-provincial transportation systems, as well as the

federally-regulated portions of the private sector. In order to deal with complaints of discrimination, the Commission must collect personal information about the complainant, employees of the respondent, and third parties. The information could include race, age, marital status, medical or educational history, and is used in order to determine whether there has been a violation of the Canadian Human Rights Act.

Secondly, the Commission conducts information programs in the field of human rights, provides advice, issues guidelines, conducts research, reviews regulations and other instruments, maintains close liaison with the provinces and endeavours to reduce discriminatory practices.

The Canadian Human Rights Commission reports to Parliament through the Minister of Justice.

Canadian Institute for International Peace and Security

Constitution Square
360 Albert Street, 9th Floor
Ottawa, Ontario K1R 7X7

Information: Ottawa/Hull (613) 990-1593.

The Canadian Institute for International Peace and Security was established in 1984. The objective of the Institute is to foster, fund and conduct research on matters relating to international peace and security; to promote scholarship in matters relating to international peace and security; to study and propose ideas and policies for the enhancement of international peace and security; and to collect and disseminate information on, and encourage public discussion of, issues concerning international peace and security.

Minister responsible:

Secretary of State for External Affairs

Canadian International Development Agency

Place du Centre
200 Promenade du Portage
Hull, Quebec

(Mail: Ottawa, Ontario K1A 0G4)

Information: Ottawa/Hull (819) 997-5006 (public inquiries centre); (819) 997-5456 (reception).

CIDA administers most of the Canadian development co-operation program. Its goal is to help the peoples and countries of the Third World achieve self-sustaining social and economic development. CIDA focuses its efforts on the poorest countries and pays special attention to three crucial aspects of development: agriculture

(including fisheries and forestry), energy, and human resource development.

Minister responsible:

Minister of State for External Relations

Canadian International Grains Institute

303 Main Street, Suite 1000
Winnipeg, Manitoba R3C 3G7

Information: Winnipeg (204) 983-5344.

The Institute is a non-profit corporation offering instructional programs in grain handling, transportation, marketing and technology, to provide market development support for Canada's grain and oilseed industry. The Institute is affiliated with the Canadian Wheat Board and the Canadian Grain Commission and works closely with Agriculture Canada, the grain business and academic community. By providing buyers and potential buyers of Canadian grain with a better understanding of Canada's grain industry and the world grain industry, the Institute contributes to the maintenance and enlargement of markets for Canadian grain and oilseeds and their products. Course participation is by invitation only.

Minister responsible:

Minister of State, Grains and Oilseeds

Canadian International Trade Tribunal

Journal Tower South, 19th Floor
365 Laurier Avenue West
Ottawa, Ontario K1A 0G7

Information: Ottawa/Hull (613) 993-4601.

The Tribunal conducts inquiries to determine whether dumped, subsidized or low-cost imports cause or threaten material injury to Canadian production of like goods.

Minister responsible:

Minister of Finance

Canadian Livestock Feed Board

Head office

5180 Queen Mary Road, Room 400
(Mail: PO Box 177, Snowdon Station,
Montreal, Quebec H3X 3T4)

Regional office: Surrey.

Information: Montreal (514) 283-7505.

The Board's objectives are to ensure the availability of feed grain to meet the needs of livestock and poultry feeders, the availability of adequate storage space in eastern Canada, and stability

and fair equalization in the price of feed grains within eastern Canada, British Columbia, and the Yukon and Northwest Territories.

Minister responsible:

Minister of Agriculture

Canadian National Railway Company

Corporate headquarters

935 de la Gauchetière Street West

Montreal, Quebec

(Mail: PO Box 8100, Station A,
Montreal, Quebec H3C 3N4)

Regional offices: Vancouver, Edmonton, Winnipeg, Toronto, Montreal, Moncton.

Other offices: throughout Canada.

Business unit headquarters: Calgary (CN Exploration), Toronto (CN Real Estate and CN Tower), Montreal (CANAC International and CN Investment Division), St. John's (TerraTransport), Detroit, US (Grand Trunk Corporation).

Information: Montreal (514) 399-5430 (general inquiries).

The Canadian National Railway Company was incorporated in 1919 as a federal Crown corporation. Today, CN's mandate is to operate a rail-based transportation system in a commercial manner, offering rail and intermodal freight services across Canada. Other business units operate a freight railway network in the United States, run the CN Tower, develop the real estate and natural resource potential of railway lands, provide technical consulting services, and invest the Corporation's pension funds.

Minister responsible:

Minister of Transport

Canadian Patents and Development Limited

275 Slater Street, 19th Floor

Ottawa, Ontario K1A 0R3

Information: Ottawa/Hull (613) 990-6100.

Canadian Patents and Development Limited (CPDL) has, as its main objective, to make available to the public the industrial and intellectual property that results from publicly funded research and development. The Corporation was established in 1947 to protect and market Crown-owned technology that had been developed during World War II, as well as administer the new forms of technology expected to be produced in the future by federal government departments and agencies. From 1948 onwards, the Corporation's mandate has been expanded to include the administration

of technology developed by universities, provincial research institutes and other non-profit organizations.

As the central agency of the federal government involved in technology transfer, the Corporation provides many services to its sources, which are vital to the success of the overall government technology transfer process.

Minister responsible:

Minister of Industry, Science and Technology
Canada

Canadian Radio-television and Telecommunications Commission

Les Terrasses de la Chaudière

Central Building

1 Promenade du Portage

Hull, Quebec

(Mail: Ottawa, Ontario K1A 0N2)

Regional offices: Vancouver, Winnipeg, Montreal, Halifax.

Information: Ottawa/Hull (819) 997-0313;
Telecommunications Device for the Deaf (TDD)
(819) 994-0423.

The CRTC regulates both public and private broadcasters. It has the power to issue, renew, amend, suspend or revoke licences, and to set any conditions of licence it feels necessary. With respect to federally regulated telecommunications carriers (Bell Canada, the British Columbia Telephone Company, CNCP Telecommunications, Telesat Canada, Terra Nova Telecommunications Inc. and NorthwTel Inc.), the CRTC has the power to ensure that the rates charged by the carriers are just and reasonable. The Commission's approval is also required for traffic agreements and capital stock issues.

Minister responsible:

Minister of Communications

Canadian Saltfish Corporation

Torbay Road at Newfoundland Drive
(PO Box 9440)

St. John's, Newfoundland A1A 2Y3

Information: (709) 772-6080, 772-6071.

The Corporation is the sole buyer and seller of cured codfish in the province of Newfoundland and in part of the province of Quebec. This power is based on federal legislation (the Saltfish Act) and supporting legislation from the provinces of Newfoundland and Quebec.

Minister responsible:

Minister of Fisheries and Oceans

**Canadian Security Intelligence Service,
(Office of the Inspector General)**

340 Laurier Avenue West
Ottawa, Ontario K1A 0P8
Information: Ottawa/Hull (613) 990-3270.

The Canadian Security Intelligence Service is responsible for investigating and advising the government on threats to the security of Canada and providing security assessments to government departments, pursuant to the authority of the Canadian Security Intelligence Service Act.

Minister responsible:
Solicitor General of Canada

Canadian Wheat Board

423 Main Street
(PO Box 816)
Winnipeg, Manitoba R3C 2P5
Regional offices: Vancouver, Montreal.
Information: Winnipeg (204) 983-3416.

The Canadian Wheat Board has sole jurisdiction over export sales of wheat and barley produced in Western Canada, and over the domestic sale of these grains for human consumption. It also controls the delivery of these and other major grains, and co-ordinates their movement to terminal elevators. Marketing of oats was also under the Board's jurisdiction, but was withdrawn as of August 1, 1989.

Minister responsible:
Minister of State, Canadian Wheat Board

Department of Communications

Head office
Journal Tower North
300 Slater Street
Ottawa, Ontario K1A 0C8
Regional offices: Vancouver, Winnipeg, Toronto,
Montreal, Moncton.
District offices: throughout Canada.
Information: Ottawa/Hull (613) 990-4900.

In the field of telecommunications, the Department is concerned with the electronic means of creating, processing, storing, distributing, displaying, accessing, and exchanging information. Its activities are focused on broadcasting, communications research and on Canada's role in satellite communications. Its clientele consists largely of private and public sector institutions that either manufacture equipment or provide services. In

the cultural field, the Department is concerned with a host of public and private institutions and with the cultural content that flows through electronic and non-electronic channels of communications. It includes among its clients the creators and administrators of cultural content.

Minister responsible:
Minister of Communications

Competition Tribunal

Royal Bank Building, Room 600
90 Sparks Street
Ottawa, Ontario
(Mail: PO Box 1899, Station B,
Ottawa, Ontario K1P 5R5)
Information: Ottawa/Hull (613) 957-3172.

The Competition Tribunal is a court of record to hear and determine all applications made to it in relation to matters falling under Part VIII of the Competition Act. The registry of the Competition Tribunal provides registry, research and administrative assistance to the Tribunal for the timely and expeditious conduct of its hearings which may be held throughout Canada as the Tribunal considers necessary or desirable for the proper conduct of its business.

The objective of the Competition Tribunal is to maintain and encourage competition in the Canadian economy by providing a court of record to hear and determine all applications under Part VIII of the Competition Act pertaining to anti-competitive behaviour on the part of individuals and corporations.

Minister responsible:
Minister of Consumer and Corporate Affairs

Consumer and Corporate Affairs Canada

Head office
Place du Portage
50 Victoria Street
Hull, Quebec
(Mail: Ottawa, Ontario K1A 0C9)
Regional offices: Vancouver, Winnipeg, Toronto
(Willowdale), Montreal, Halifax.
District and area offices: throughout Canada.
Information: Ottawa/Hull (819) 997-2938;
Telecommunications Device for the Deaf (TDD)
(819) 944-0067.

The Department is concerned with the conduct of the marketplace and aims to increase its efficiency. It strives, through legislation and regulation, to balance the interests of consumers and

business, and to maintain confidence in the integrity and viability of private enterprise. The Department also supports the consumer movement.

Minister responsible:

Minister of Consumer and Corporate Affairs

Correctional Investigator (Office of the)

PO Box 2324, Station D
Ottawa, Ontario K1P 5W5

Information: Ottawa/Hull (613) 993-6425,
990-2695.

The Office of the Correctional Investigator investigates complaints from inmates, as defined in the Penitentiary Act. It also reports on problems of inmates, raised through complaints, that come within the responsibility of the Solicitor General of Canada, except for problems where the person complaining has not, in the opinion of the Correctional Investigator, exhausted all available legal or administrative remedies; problems concerning any subject matter that ceased to exist or to be the subject of complaint more than one year before the lodging of the complaint with the Commissioner (Correctional Investigator); and problems concerning any subject matter or conditions under the responsibility of the Solicitor General of Canada that touch on the preparation of material for consideration of the National Parole Board. Further, the Commissioner need not investigate if the subject matter of a complaint has previously been investigated or if, in the opinion of the Commissioner, a person complaining has no valid interest in the matter.

Minister responsible:

Solicitor General of Canada

Correctional Service of Canada

Head office

Sir Wilfrid Laurier Building
340 Laurier Avenue West
Ottawa, Ontario K1A 0P9

Regional offices: Abbotsford, Saskatoon,
Kingston, Laval, Moncton.

District offices: throughout Canada.

Information: Ottawa/Hull (613) 992-5891.

The Correctional Service of Canada, as part of the criminal justice system, has as its mission to contribute to the protection of society by exercising safe, secure and humane control of offenders while helping them become law-abiding citizens. It provides programs for offenders from pre-admission until the expiration of their sentence. It operates

on the basis that the offender must be viewed from physical, emotional and cultural aspects.

Minister responsible:

Solicitor General of Canada

Defence Construction (1951) Limited

Head office

Sir Charles Tupper Building
3rd Floor, A Wing
Riverside Drive
Ottawa, Ontario K1A 0K3

Regional offices: Victoria, Winnipeg, Toronto,
Montreal (Longueuil), Halifax.

Site offices: on various Canadian Forces bases
across the country.

Information: Ottawa/Hull (613) 998-9548.

The Corporation is the contracting and supervisory agency for the major military construction and maintenance projects required by the Department of National Defence. Its principal functions are to obtain tenders, make recommendations on proposed awards, and to award and administer contracts.

Minister responsible:

Minister of Public Works

Economic Council of Canada

320 Queen Street
Tower A, 18th Floor
Ottawa, Ontario
(Mail: PO Box 527, Station B
Ottawa, Ontario K1P 5V6)

Information: Ottawa/Hull (613) 952-1711.

The Council is an independent, advisory body that prepares and publishes an annual review of the country's economic problems and medium-term prospects. It also conducts economic studies on its own initiative or at the request of the government. The results of its research are available to the public in the form of published reports and authored research studies.

Minister responsible:

Prime Minister of Canada

Elections Canada

440 Coventry Road
Ottawa, Ontario K1A 0M6

Information: Ottawa/Hull (613) 993-2975 or toll-free 1-800-267-VOTE.

The Chief Electoral Officer of Canada is responsible for the supervision of the administrative

conduct of federal elections in Canada and for ensuring that all provisions of the Canada Elections Act are complied with. Major activities include the training of returning officers, the revision of polling division boundaries, the acquisition of election material and supplies, the maintenance of a registry of political parties and the certification of statutory payments to be made to auditors, political parties and candidates under the election expenses provisions of the Act. Pursuant to the Electoral Boundaries Readjustment Act and following each decennial Census, the Chief Electoral Officer must calculate the number of electoral districts to be assigned to each province according to rules contained in Section 51 of the Constitution Act, and prepare population distribution maps for use by electoral boundaries commissions that are directly responsible for readjusting federal electoral district boundaries.

The Chief Electoral Officer reports directly to Parliament.

Emergency Preparedness Canada

Head office
Jackson Building, 2nd Floor
122 Bank Street
Ottawa, Ontario K1A 0W6

Regional offices: provincial capitals.

Information: Ottawa/Hull (613) 991-7034, 991-7038.

Emergency Preparedness Canada is the federal agency responsible for co-ordinating the emergency planning and response of the Government of Canada for peacetime and wartime emergency situations.

Minister responsible:

Minister of National Defence

Canada Employment and Immigration Commission and Department of Employment and Immigration Canada

Head office
Place du Portage, Phase IV
Level 0
Hull, Quebec
(Mail: Ottawa, Ontario K1A 0J9)

Regional offices: Vancouver, Edmonton, Regina, Winnipeg, Toronto (Willowdale), Montreal, Fredericton, Dartmouth, Charlottetown, St. John's.

Canada employment centres: throughout Canada.

Canada immigration centres: 107 throughout Canada.

Agricultural employment services offices: 68 throughout Canada.

Information: Ottawa/Hull (819) 994-6313.

The Commission and Department are responsible for the legislative review of, and amendments to, the legislation they administer; special applications of the legislation, such as adjudication principles, labour conflicts, work-sharing agreements and job creation projects; adjustments to Unemployment Insurance (UI) premium rates; budgets affecting the UI fund; appeals concerning UI premium reduction; and interprovincial and international agreements.

Ministers responsible:

Minister of Employment and Immigration
Minister of State, Employment and

Immigration

Minister of State, Youth, Fitness and Amateur Sport

Energy, Mines and Resources Canada

Head office
580 Booth Street
Ottawa, Ontario K1A 0E4

Regional information offices: Vancouver, Calgary, Saskatoon, Winnipeg, Toronto, Montreal, Moncton (Dieppe), Halifax, St. John's.

Surveys and Mapping and Remote Sensing Sector, regional offices: Whitehorse, Yellowknife, Vancouver, Edmonton, Regina, Winnipeg, Toronto, Sherbrooke, Amherst.

Information: Ottawa/Hull (613) 995-3065; map sales: Ottawa/Hull (613) 995-4510.

The objective of the Department of Energy, Mines and Resources is to promote the discovery, development and efficient use of the country's mineral and energy resources and to broaden the public's knowledge of Canada's landmass for the benefit of all Canadians. The Department comprises three programs: Energy, Minerals and Earth Sciences, and Administration. Through these programs it fosters national policies based on research and data collection, provides initiatives directed toward national economic development and makes available scientific and technical information to a wide range of customers across the country.

Minister responsible:

Minister of Energy, Mines and Resources

Energy Supplies Allocation Board

580 Booth Street

Ottawa, Ontario K1A 0E4

Information: Ottawa/Hull (613) 996-2693.

The Board's responsibility is to study and keep under review all matters relevant to a full understanding of the international petroleum supply situation and to ensure that Canada is fully prepared to meet any petroleum supply emergency with well prepared and timely plans for action.

Minister responsible:

Minister of Energy, Mines and Resources

Environment Canada

Headquarters

Les Terrasses de la Chaudière

27th Floor

10 Wellington Street

Hull, Quebec

(Mail: Ottawa, Ontario K1A 0H3)

Regional offices: across Canada.

Other offices (including weather offices and national parks): throughout Canada.

Information: Ottawa/Hull (819) 997-2800.

The primary objective of the Department of the Environment is to preserve and enhance the quality of the environment for the benefit of present and future generations of Canadians. Departmental programs are designed to promote the establishment or adoption of objectives and standards relating either to environmental quality or pollution control, to ensure the wise management and use of renewable resources and to provide Canadians with environmental information in the public interest. As well, the Department ensures that new federal projects, programs and activities are assessed early in the planning process for potentially adverse effects on the environment. It also ensures the preservation of nationally significant natural and cultural heritages.

Minister responsible:

Minister of the Environment

Export Development Corporation

Head office

151 O'Connor Street

(PO Box 655)

Ottawa, Ontario K1P 5T9

Regional offices: Vancouver, Calgary, Toronto, Montreal, Halifax.

District offices: Winnipeg, Ottawa, London.

Information: Ottawa/Hull (613) 598-2500.

Export Development Corporation (EDC) is Canada's official export credit agency, responsible for providing export credit insurance, loans, guarantees and other financial services to promote Canadian export trade. It also arranges credit for foreign buyers in order to facilitate and develop export trade.

Minister responsible:

Minister for International Trade

External Affairs Canada

Head office

Lester B. Pearson Building

125 Sussex Drive

Ottawa, Ontario K1A 0G2

Passport offices: throughout Canada.

Information: Ottawa/Hull, general information (includes evenings, weekends and holidays) (613) 996-9134; foreign policy (613) 996-9134; Visual Ear (613) 996-9136; for passport information (613) 994-3502 or contact your nearest regional passport office.

The Department of External Affairs has the primary responsibility for the promotion and protection of Canada's interests abroad and the conduct of Canada's relations with other countries. Its main functions are: to ensure the effective representation of Canada in other countries and in international organizations, including close contact, communication and negotiation with other governments and organizations through Canada's extensive network of representatives abroad; to evaluate information about political, economic and other developments likely to affect Canada's interests; to give advice to the government, often in consultation with other departments, on the formulation and implementation of policies and programs with international dimensions; to ensure the co-ordination of the external aspects and application of national policies for export trade promotion, defence and security, development assistance, immigration, and cultural and scientific exchanges; to reflect to peoples abroad the bilingual and multicultural character of Canadian society; and to provide protection and assistance to Canadian citizens abroad.

Minister responsible:

Secretary of State for External Affairs

Farm Credit Corporation Canada

Head office
434 Queen Street
(PO Box 2314, Postal Station D)
Ottawa, Ontario K1P 6J9

Regional offices: Kelowna, Edmonton, Regina,
Winnipeg, Guelph, Quebec (Ste-Foy), Moncton.

Field offices: throughout Canada.

Information: Ottawa/Hull (613) 996-6606.

The Corporation makes and administers farm loans under the authority of the Farm Credit Act and the Farm Syndicates Credit Act to enable Canadian farmers to establish, develop and maintain viable farm enterprises. As well, it administers programs as directed by the federal government and provides counselling and assistance in the planning, organization and development of farm businesses to all applicants and borrowers.

Minister responsible:

Minister of Agriculture

Federal Business Development Bank

Head office
800 Place Victoria
(PO Box 335)
Montreal, Quebec H4Z 1L4

Regional offices: Vancouver, Winnipeg, Toronto,
Montreal, Halifax.

Branch offices: throughout Canada.

CASE (Counselling Assistance to Small Enterprises) offices: throughout Canada.

Information: Montreal (514) 283-5904.

The Federal Business Development Bank is a Crown corporation that assists in the establishment and development of business enterprises in Canada by providing them with financial and management services.

Ministers responsible:

Minister of Industry, Science and Technology
Minister of Small Business and Tourism

Federal Judicial Affairs (Office of the Commissioner for)

110 O'Connor Street, 11th Floor
Ottawa, Ontario K1A 1E3

Information: Ottawa/Hull (613) 992-9175.

The main responsibility of the Office of the Commissioner for Federal Judicial Affairs is to administer Part I of the Judges Act. The Commission is also responsible for the setting up and

operation of the Secretariat for the 12 judicial appointments committees and is involved in the administration of the Canadian Judicial Council, the Federal Court of Canada and the Tax Court of Canada.

Minister responsible:

Minister of Justice

Federal-Provincial Relations Office

Head office
59 Sparks Street
Postal Station B
Ottawa, Ontario K1A 0A3

Information: Ottawa/Hull (613) 957-5300.

The functions of the Federal-Provincial Relations Office (FPRO) are to advise and assist the Prime Minister regarding overall responsibility for federal-provincial relations, to provide the Cabinet with assistance in examining federal-provincial issues of current and long-term concern, and to promote and facilitate federal-provincial co-operation and consultation. The FPRO also provides services to the Minister of State, Federal-Provincial Relations, and assistance to federal ministers, departments and agencies in the conduct of their relations with provincial governments.

Ministers responsible:

Prime Minister of Canada
Minister of State, Federal-Provincial
Relations

Department of Finance Canada

L'Esplanade Laurier, East Tower
140 O'Connor Street
Ottawa, Ontario K1A 0G5

Information: Ottawa/Hull (613) 992-1573; Tariffs Division (613) 996-5885; concerning the federal budget, toll-free 1-800-267-6620 (Eng.); 1-800-267-6640 (Fr.); Telecommunications Device for the Deaf (TDD) (613) 267-6650.

The Department of Finance is responsible for advice to the federal government on the economic and financial affairs of Canada. It oversees all government initiatives affecting the economy and monitors external factors that may bear on domestic economic performance. The Department's most visible output is the federal Budget. The Minister of Finance's Budget speech reviews the government's accounts and presents fiscal projections for the coming years including expenditures, revenues, tax changes and debt levels.

In addition, the Minister is responsible for the management of the Consolidated Revenue Fund.

Minister responsible:

Minister of Finance

Fisheries and Oceans

Head office

Centennial Towers

200 Kent Street

Ottawa, Ontario K1A 0E6

Regional head offices: Vancouver, Winnipeg, Mont Joli, Moncton, Halifax, St. John's.

District offices: throughout Canada.

Information: Ottawa/Hull (613) 993-0600.

The Department of Fisheries and Oceans is responsible for a wide range of fisheries activities, including fisheries management and research in coastal and inland waters, fisheries economic development, international fisheries negotiations, oceanographic research, hydrographic surveying and charting, and the development and administration of fishing and recreational harbours.

Minister responsible:

Minister of Fisheries and Oceans

Fitness and Amateur Sport

Head office

Journal Tower South

365 Laurier Avenue West

Ottawa, Ontario K1A 0X6

Information: Ottawa/Hull (613) 996-4510.

Fitness and Amateur Sport aims to improve the fitness of Canadians and their participation and excellence in amateur sport.

Minister responsible:

Minister of State, Fitness and Amateur Sport

Foreign Claims Commission

Lester B. Pearson Building

Tower C, 7th Floor

125 Sussex Drive

Ottawa, Ontario K1A 0G2

(Mail: PO Box 432, Ottawa, Ontario K1N 8V5)

Information: Ottawa/Hull (613) 995-7707 or 992-0976.

The Foreign Claims Commission deals with claims against foreign countries with which Canada has agreements or is in the process of negotiating agreements, for compensation to Canadians whose property has been nationalized or otherwise taken

without compensation. When such an agreement has been concluded, the Commission makes recommendations to the Secretary of State for External Affairs and the Minister of Finance on the eligibility of individual claimants for compensation and on amounts of compensation to be awarded.

Ministers to whom the Commission reports:

Secretary of State for External Affairs

Minister of Finance

Forestry Canada

Place Vincent Massey

351 Saint-Joseph Boulevard

Hull, Quebec

(Mail: Ottawa, Ontario K1A 1G5)

Regional offices: Victoria, Edmonton, Sault Ste Marie, Chalk River, Val D'Or, Rimouski, Fredericton, St. John's.

Information: Ottawa/Hull (819) 953-2312.

Forestry Canada consists of: Policy, Planning and Economics, Industry Trade and Technology, Forest Science and Forest Development directorates.

Policy Planning and Economics is responsible for the development of policies for forest renewal and related research and development, plus strategic and operational planning for the management of the program. The Forest Science Directorate administers the planning, co-ordination, evaluation and development of its programs as well as Canadian Forestry Service research operations and technical services to ensure that a greater body of scientific and technical knowledge of the forest resource will contribute to the effective management, utilization and protection of Canada's forest resources. The Forest Development Directorate is responsible for the implementation and administration of the federal/provincial forestry development agreements, federal forest land management and forest sector labour market development. Industry, Trade and Technology is responsible for all industry research and development through Crown-owned corporations, industrial development activities and the development of trade and markets for forest products.

Minister responsible:

Minister of Forestry

Freshwater Fish Marketing Corporation

1199 Plessis Road

Winnipeg, Manitoba R2C 3L4

Information: Winnipeg (204) 983-6472.

The Corporation markets and processes freshwater fish landed by commercial fishermen in Manitoba,

Saskatchewan, Alberta, the Northwest Territories and parts of northwestern Ontario, so as to increase returns to the fishermen. It receives and exercises grants, rights, franchises, privileges and concessions from governments (foreign and provincial) and individuals.

Minister responsible:

Minister of Fisheries and Oceans

Grain Transportation Agency

135 Lombard Avenue

Winnipeg, Manitoba R3B 0T6

Information: Winnipeg (204) 949-5953.

The Grain Transportation Agency (GTA) is charged with the development, co-ordination and management of specific aspects of the grain handling and transportation system. The Agency, under the direction of the Administrator, is responsible for promoting transportation system efficiencies, monitoring railway performance relative to grain, allocating grain cars in co-operation with the Canadian Wheat Board and the Canadian Grain Commission, and generally co-ordinating the handling and transportation of grain. A Senior Grain Transportation Committee (SGTC), made up of senior representatives from all facets of the grain trade, was established under the Western Grain Transportation Act as an advisory body to the Minister of Transport and the Administrator. The Agency provides administration and technical support to the SGTC.

Minister responsible:

Minister of Transport

Health and Welfare Canada

Head office

Brooke Claxton Building
de la Colombine Boulevard
Tunney's Pasture
Ottawa, Ontario K1A 0K9

Regional offices: throughout Canada.

District offices: throughout Canada.

Information: Ottawa/Hull (613) 957-2991.

The Department is responsible for matters relating to the promotion and preservation of the health, social security and social welfare of Canadians. Its activities include investigation and research into public health and welfare; medical assessment and care of immigrants and seamen; supervision of the public health facilities of rail, water and other types of transportation; and supervision of such income programs as the Canada Pen-

sion Plan, Family Allowances and Old Age Security. The Department's mandate also includes the Fitness and Amateur Sport Program, which is designed to promote, encourage and develop fitness and amateur sport in Canada.

Minister responsible:

Minister of National Health and Welfare

Historic Sites and Monuments Board of Canada

Les Terrasses de la Chaudière

(Mail: Ottawa, Ontario K1A 0H3)

Information: Ottawa/Hull (819) 997-4059.

The Historic Sites and Monuments Board of Canada is part of the Canadian Parks Service and is concerned with the preservation, development, maintenance, operation and interpretation of national historic parks and sites and heritage buildings and canals.

Minister responsible:

Minister of the Department of the Environment

Immigration and Refugee Board of Canada

Head office

116 Lisgar Street

Ottawa, Ontario K1A 0K1

Regional offices: Vancouver, Calgary, Winnipeg, Toronto, Montreal.

Information: Ottawa/Hull (613) 995-6486.

Appeals are provided to persons who have been ordered removed from Canada or to persons in Canada whose relatives have been refused admission to Canada. The Board makes available an independent court to which they may appeal such decisions, not only on legal grounds, but also on equitable grounds. Claims to refugee status are adjudicated fairly and quickly so as to afford protection to genuine refugees while discouraging abuse of Canada's humanitarian tradition.

Minister responsible:

Minister of Employment and Immigration

Indian Affairs and Northern Development

Head office

Les Terrasses de la Chaudière

North Tower

10 Wellington Street

Hull, Quebec

(Mail: Ottawa, Ontario K1A 0H4)

Regional offices: Whitehorse, Yellowknife, Vancouver, Edmonton, Regina, Winnipeg, Toronto, Quebec, Amherst.

Information: Ottawa/Hull, general inquiries (819) 997-0380.

The Department is responsible for Canada's Indian and Inuit people and for natural resource management in the Yukon and Northwest Territories.

Minister responsible:

Minister of Indian Affairs and Northern Development

Industry, Science and Technology Canada

Head office

C.D. Howe Building

235 Queen Street

Ottawa, Ontario K1A 0H5

Regional offices: Whitehorse, Yellowknife, Vancouver, Edmonton, Saskatoon, Winnipeg, Toronto, Montreal, Moncton, Halifax, Charlottetown, St. John's.

Local offices: throughout Canada.

Information: Ottawa/Hull (613) 995-8900.

The mandate of Industry, Science and Technology Canada (ISTC) is to act in full partnership with the private sector, the science community and other levels of government to promote international competitiveness and industrial excellence in Canada; to renew and rebuild our scientific, technological, managerial and production base; and to bring together in a concerted way the talents required to guarantee Canada's place in the front rank of industrial nations. The focus of ISTC policy development, program and service delivery, and its advocacy role inside and outside government can be summed up as building competitiveness.

Ministers responsible:

Minister of Industry, Science and Technology
Minister of State, Small Business and Tourism
Minister of State, Science

Information and Privacy Commissioners of Canada (Offices of the)

Place de Ville

Tower B

112 Kent Street, 3rd Floor

Ottawa, Ontario K1A 1H3

Information: Ottawa/Hull (613) 995-2410 or toll-free 1-800-267-0441.

The Information Commissioner is appointed by Parliament to deal with complaints from

individuals who allege that the government has failed to comply with rights contained in the Access to Information Act. The Information Commissioner may appear on behalf of complainants, with their consent or as a party, in applications before the Federal Court for review of decisions of government institutions to refuse access under the Act. In addition to annual reports, the Information Commissioner may make special reports to Parliament at any time.

The Privacy Commissioner is appointed by Parliament to investigate complaints by individuals who allege that the federal government has failed to comply with their rights to personal information as outlined in the Privacy Act.

The Information and Privacy Commissioners of Canada report directly to Parliament.

International Centre for Ocean Development

5670 Spring Garden Road, 9th Floor

Halifax, Nova Scotia B3J 1H6

Other office: Ottawa.

Information: Halifax (902) 426-1512; Ottawa (613) 954-1920.

This Crown corporation was established in 1985 in the wake of the 1982 United Nations Conference on the Law of the Sea, which introduced a global plan for the sharing of the world's ocean resources. ICOD's mission is to co-operate with and support developing countries in the management of their ocean resources. Its objectives are to support improved and innovative approaches to the use of ocean resources by developing countries; to foster the development of Canadian expertise in ocean-use management and to make this available to developing countries; to provide training programs, technical assistance and advisory services; to develop and distribute information; and, to a limited extent, to sponsor research consistent with ICOD's mandate. Many Canadian training and research centres already have strong links with foreign institutions and international development projects. ICOD's initiatives are meant to complement their work and the work of other national and international organizations involved in ocean development, and not to be a competitive venture.

Minister responsible:

Secretary of State for External Relations and International Development

International Development Research Centre

250 Albert Street
(PO Box 8500)
Ottawa, Ontario K1G 3H9

Other offices: Bogota, Cairo, Dakar, Nairobi,
New Delhi, Singapore.

Information: Ottawa/Hull (613) 598-0569.

The objectives of the Centre are to stimulate and financially support research for the benefit of developing countries.

Minister responsible:

Secretary of State for External Affairs

International Joint Commission

Canadian Section
Berger Building, 18th Floor
100 Metcalfe Street
Ottawa, Ontario K1P 5M1

Regional office: Windsor.

Information: Ottawa/Hull (613) 995-2984.

The International Joint Commission, consisting of three Canadian and three United States Commissioners, was established under the 1909 Boundary Waters Treaty to assist in the solution and prevention of disputes. Among the Commission's duties is the quasi-judicial responsibility for deciding on applications for construction and operation of certain works that would affect water levels and flows on boundary and transboundary waters. The Commission also investigates problems referred to it by the two governments, including water quantity and quality issues. The IJC has been given an on-going reference by the 1978 Great Lakes Water Quality Agreement and is also engaged in references dealing with such matters as fluctuating water levels in the Great Lakes and water quality in the Red, Rainy and St. Croix Rivers.

Minister responsible:

Secretary of State for External Affairs

Investment Canada

240 Sparks Street
(PO Box 2800, Station D)
Ottawa, Ontario K1P 6A5

Information: Ottawa/Hull (613) 995-0465; concerning investment services, toll-free 1-800-267-0490.

The Agency encourages and facilitates investment in Canada by Canadians and non-Canadians by

offering information and other investment services, in collaboration with other departments and agencies of the federal and provincial governments and with the private sector in Canada and abroad. The Agency also provides advice and assistance to the Minister responsible for Investment Canada concerning investment proposals that are subject to review under the Investment Canada Act.

Minister responsible:

Minister of Industry, Science and Technology

Department of Justice Canada

Head office
Justice Building
239 Wellington Street
Ottawa, Ontario K1A 0H8

Regional offices: Vancouver, Edmonton, Winnipeg, Toronto, Montreal, Halifax.

Information: Ottawa/Hull (613) 995-2569.

The Department supervises all legal matters under federal responsibility. It also acts as legal advisor to the Governor General and advises upon legislative acts.

Minister responsible:

Minister of Justice and Attorney General of Canada

Labour Canada

Headquarters
Place du Portage
165 Hotel de Ville Street
Hull, Quebec
(Mail: Ottawa, Ontario K1A 0J2)

Regional offices: Vancouver, Winnipeg, Toronto (Willowdale), Ottawa, Montreal, Moncton.

District offices: throughout Canada.

Federal Mediation and Conciliation Service field offices: Vancouver, Winnipeg, Toronto, Montreal, Halifax, St. John's.

Information: Ottawa/Hull (819) 997-2617.

The Department's aims are to promote stable industrial relations by maintaining a balanced legislative framework for industrial relations in the federal jurisdiction: by providing assistance to parties in overcoming industrial relations problems; by establishing appropriate standards of wages, conditions of employment, and occupational safety and health; by providing non-legislative programs designed to achieve understanding and co-operation in the industrial relations

sphere; and by maintaining and strengthening the Canadian contribution to the improvement of labour conditions throughout the world.

Minister responsible:

Minister of Labour

Law Reform Commission of Canada

Head office

Varett Building, 7th Floor

130 Albert Street

Ottawa, Ontario K1A 0L6

Regional office: Montreal.

Information: Ottawa/Hull (613) 996-7844.

The Commission carries out research in the areas of criminal law, criminal procedure, administrative law, protection of life and legislative drafting.

Minister responsible:

Minister of Justice

Library of Parliament

Parliament Buildings

Wellington Street

Ottawa, Ontario K1A 0A9

Information: Ottawa/Hull (613) 995-1166.

The Library makes available to parliamentarians a large collection of resources as well as expert professional staff to support their information and research needs.

Ministers responsible:

Speaker of the Senate

Speaker of the House of Commons

Marine Atlantic Incorporated

100 Cameron Street

Moncton, New Brunswick E1C 5Y6

Regional offices: Halifax, Charlottetown, St. John's.

Information: Moncton (506) 858-3600.

Marine Atlantic is an independent Crown corporation operating passenger, auto and freight ferry services throughout Atlantic Canada and to the state of Maine. It operates a fleet of smaller passenger and freight vessels, which sail seasonally along the coast of Newfoundland and into Labrador. Marine Atlantic ferries carry more than 2.5 million passengers and one million vehicles annually, and are subsidized by Transport Canada.

Minister responsible:

Minister of Transport

Medical Research Council of Canada

Jeanne Mance Building, 20th Floor

Tunney's Pasture

Ottawa, Ontario K1A 0W9

Information: Ottawa/Hull (613) 954-1812.

According to the Medical Research Council Act, the Council's mandate is to promote and support health sciences research in Canada by funding research carried out primarily in faculties of medicine, dentistry, and pharmacy, as well as in affiliated institutions and hospitals.

Minister responsible:

Minister of National Health and Welfare

Merchant Seamen Compensation Board

2 Place du Portage

Hull, Quebec K1A 0J2

Information: Ottawa/Hull (819) 997-2555.

The Merchant Seamen Compensation Board administers the Merchant Seamen Compensation Act, which provides workers' compensation coverage for seamen who are employed on vessels registered in Canada and who are not covered by a provincial workers' compensation act.

Minister responsible:

Minister of the Department of Labour

National Advisory Council on Aging

Room 340

Brooke Claxton Building

Tunney's Pasture

Ottawa, Ontario K1A 0K9

Information: Ottawa/Hull (613) 957-1968.

The 18-member National Advisory Council on Aging is a citizens' advisory body which counsels the Minister of National Health and Welfare on programs relating to the quality of life of Canada's aging population. In addition, the Council reviews the needs and problems of older people and recommends remedial action; it consults with institutions and groups involved in aging or representing the aged, publishes reports, helps in information dissemination, and stimulates public discussion on aging.

Minister responsible:

Minister of National Health and Welfare

National Archives of Canada

Head office

395 Wellington Street
Ottawa, Ontario K1A 0N3

Federal records centres: Vancouver (Burnaby),
Edmonton, Winnipeg, Toronto (Etobicoke),
Ottawa, Montreal, Halifax.

Laurier House (historical museum): Ottawa.

Information: Ottawa/Hull (613) 995-5138.

The National Archives of Canada provides three basic services: collecting and preserving public (federal) and private historical records of national importance; organizing, managing, preserving or disposing of the current records of government institutions at the request of Treasury Board; and providing assistance to the archival community. This broad mandate obliges the National Archives to preserve material both from the private sector and federal government institutions.

Minister responsible:

Minister of Communications

National Arts Centre

53 Elgin Street
(PO Box 1534, Station B)
Ottawa, Ontario K1P 5W1

Information: Ottawa/Hull (613) 996-5051.

The National Arts Centre Corporation is responsible for the operation of the National Arts Centre in Ottawa and the development of the performing arts in the National Capital Region. It contributes to artistic life in the Regional Municipality of Ottawa-Carleton, from which it receives a grant each year. The NAC also assists the Canada Council in developing the performing arts throughout Canada.

Minister responsible:

Minister of Communications

The National Battlefields Commission

390 de Bernières Avenue
Quebec, Quebec G1R 2L7

Information: Quebec (418) 648-3506.

The National Battlefields Commission was established for the purpose of acquiring, restoring and maintaining the historic battlefields in Quebec City, and to form a National Battlefields Park.

Minister responsible:

Minister of the Environment

National Capital Commission

Head office

161 Laurier Avenue West
Ottawa, Ontario K1P 6J6

Visitor centres: Ottawa, Hull, Old Chelsea (Gatineau Park), Sainte-Cécile-de-Masham (seasonal office). The NCC also manages an Info-tent on Parliament Hill from June to August inclusive, and satellite centres at the Ottawa bus and train terminals in July and August.

Information: (613) 996-1811 or toll free 1-800-267-0450.

The NCC's purpose is to enhance the role of the National Capital in the lives of all Canadians by making it a national meeting place and a focus for the nation's diverse cultural life.

Minister responsible:

Minister of Public Works

National Council of Welfare

Brooke Claxton Building, Room 566
Tunney's Pasture
Ottawa, Ontario K1A 0K9

Information: Ottawa/Hull (613) 957-2961.

The National Council of Welfare was established by the Government Organization Act, 1969 as a citizens' advisory body to the Minister of National Health and Welfare. Its mandate is to advise the Minister on matters pertaining to welfare. The Council consists of 21 members drawn from across Canada and appointed by the Governor-in-Council. All are private citizens and serve in their personal capacities rather than as representatives of organizations or agencies.

Minister responsible:

Minister of National Health and Welfare

Department of National Defence

Head office

101 Colonel By Drive
Ottawa, Ontario K1A 0K2

Canadian forces recruiting centres: Vancouver, Edmonton (Lancaster Park), Calgary, Saskatoon, Winnipeg, Toronto (Willowdale), Sudbury, Ottawa, London, Hamilton, Rimouski, Quebec, Sherbrooke, Montreal, Saint John, Halifax, St. John's.

Canadian forces recruiting centre detachments: Yellowknife, Victoria, Kamloops, Regina, Windsor, St. Catharines, Peterborough, North Bay, Kitchener, Kingston, Trois-Rivières, Sherbrooke, Sept-Îles, Rouyn-Noranda, Hull, Chicoutimi,

Bathurst, Moncton, Charlottetown, Sydney, Corner Brook.

Offices of information: Victoria, Edmonton, Westwin, Belleville, Hornell Heights, Ottawa, Toronto (Willowdale), Saint-Hubert, Halifax.

Information: Ottawa/Hull (613) 995-2534 or 996-2353 (media calls).

The Department controls and manages the Canadian Armed Forces and all matters relating to national defence, including civil defence. It is responsible for the construction and maintenance of all defence establishments and facilities required for the defence of Canada.

Minister responsible:

Minister of National Defence

National Energy Board

Head office

Trebla Building

473 Albert Street

Ottawa, Ontario K1A 0E5

Reserves office: Calgary.

Information: Ottawa/Hull (613) 998-7193.

The Board regulates specific areas of the oil, gas and electrical industries in the public interest, and advises the government on matters relating to the development and use of energy resources.

Minister responsible:

Minister of Energy, Mines and Resources

National Farm Products Marketing Council

Martel Building, 13th Floor

270 Albert Street

(PO Box 3430, Station D)

Ottawa, Ontario K1P 6L4

Information: Ottawa/Hull (613) 995-2297.

The Council advises the Minister of Agriculture on the establishment and operation of national agricultural marketing agencies, and works with these agencies and provincial governments in promoting more effective marketing of farm products. Chicken, egg and turkey marketing agencies have already been established.

Minister responsible:

Minister of Agriculture

National Film Board

Operational headquarters

3155 Côte de Liesse Road

Saint-Laurent, Quebec

(Mail: PO Box 6100, Station A,

Montreal, Quebec H3C 3H5)

Distribution Centre

150 Kent Street

Ottawa, Ontario K1A 0M9

Regional distribution offices: Vancouver, Edmonton, Winnipeg, Toronto, Ottawa, Montreal, Halifax.

Other offices: throughout Canada.

Offices abroad: New York, London, Paris.

Information: Ottawa/Hull (613) 992-5492; Montreal (514) 283-9253 (Communications).

The Board's mandate is to produce and distribute, and to promote the production and distribution of Canadian films and videos.

The Board is a totally integrated production and distribution house. A large proportion of its films are made by freelance independent filmmakers. The average annual production is approximately 100 original films and 50 versions and adaptations of existing films. The Board produces versions of its films in several languages for foreign distribution. It also produces IMAX films. The Board undertakes advanced technical research and development to advance the art and technology of film and video, and plays an active role in training people in all aspects of filmmaking.

Minister responsible:

Minister of Communications

National Library of Canada

395 Wellington Street

Ottawa, Ontario K1A 0N4

Information: Ottawa/Hull (613) 995-7969.

The National Library's mandate is to promote the development of library and information resources and services and to facilitate their access; to ensure acquisition, preservation and access concerning the public heritage of Canada; and to support Canadian studies for the benefit of all Canadians.

Minister responsible:

Minister of Communications

National Museums of Canada

Head office

Centennial Towers, 8th Floor

200 Kent Street

Ottawa, Ontario K1A 0M8

Information: Ottawa/Hull (613) 954-4331.

National Museums of Canada aims to demonstrate the products of nature and the works of man, with special but not exclusive reference to

Canada. Its policy supports activities that increase public access to the collections of Canadian museums and art galleries, and that lead to greater preservation of those collections. NMC comprises, in a single administration, Canada's four national museums in the National Capital Region and a series of national programs that serve the Canadian public both directly and through hundreds of museums and related institutions across the country.

Minister responsible:

Minister of Communications

National Parole Board

Headquarters

Sir Wilfrid Laurier Building
340 Laurier Avenue West
Ottawa, Ontario K1A 0R1

Regional offices: Vancouver (Abbotsford), Saskatoon, Kingston, Montreal, Moncton.

Information: Ottawa/Hull (613) 995-1308.

The National Parole Board is responsible for granting, denying or revoking parole for inmates of all federal institutions, and inmates of provincial institutions in the Prairie and Atlantic provinces. It may also revoke mandatory supervision of federal inmates. The Board's work includes establishing eligibility criteria for conditional release, conditions of release, implementation of procedural safeguards, pardon recommendations, and communication and consultation with other components of the criminal justice system.

Minister responsible:

Solicitor General of Canada

National Research Council Canada

Head office

Montreal Road

Ottawa, Ontario K1A 0R6

Other offices: throughout Canada.

Information: Ottawa/Hull (613) 993-9101.

The National Research Council is the government's chief instrument for carrying out research and development in the natural sciences and engineering. NRC runs an extensive program of financial and technical support for industry; operates and supports major national facilities; maintains the National Science Library; publishes Canadian journals of research; and plays a major part in supporting the national scientific infrastructure of committees, networks and learned societies.

Minister responsible:

Minister of State, Science and Technology

National Transportation Agency

Head office

Les Terrasses de la Chaudière

Room 1910

15 Eddy Street

Hull, Quebec

(Mail: Ottawa, Ontario K1A 0N9)

Western division headquarters: Saskatoon.

Regional offices: Whitehorse, Vancouver, Calgary, Winnipeg, Thunder Bay, Toronto, Montreal, Moncton.

Information: Ottawa/Hull (819) 997-0344; Saskatoon (306) 975-5201.

The object of the National Transportation Act is to encourage a safe, economic, efficient and adequate transportation system to serve the needs of shippers and travellers. The National Transportation Agency (NTA) is responsible for the economic regulation of all aspects of the transportation sector in Canada under federal jurisdiction, including transport by rail, air, water and commodity pipeline, as well as certain types of interprovincial commercial motor transport. The NTA also regulates railway safety. The Agency has all the powers, rights and privileges of a superior court in Canada. Although NTA decisions are binding, the Agency may review, rescind or vary any decision or order upon application for review under Section 41 of the Act. On matters of a question of law or jurisdiction, decisions or orders may be appealed to the Federal Court or by petition to the Governor-in-Council.

Minister responsible:

Minister of Transport

Natural Sciences and Engineering Research Council of Canada

200 Kent Street

Ottawa, Ontario K1A 1H5

Information: Ottawa/Hull (613) 995-5992.

The Natural Sciences and Engineering Research Council is a federal agency that supports advanced research and development in the natural sciences and engineering at Canadian universities and encourages collaboration between the academic and industrial sectors.

Minister responsible:

Minister of State, Science and Technology

Northern Pipeline Agency Canada

Lester B. Pearson Building
125 Sussex Drive
Ottawa, Ontario K1A 0G2
Information: Ottawa/Hull (613) 993-7466.

The Agency was established to oversee the planning and construction, by Foothills Pipe Lines (Yukon) Ltd., of the Alaska Highway gas pipeline from the Alaska-Yukon border to the lower 48 states, so as to maximize economic benefits and minimize adverse effects on people and the environment along the route.

Minister responsible:

President of the Queen's Privy Council for Canada

Northwest Territories Water Board

Precambrian Building
9th Floor
(PO Box 1500)
Yellowknife, N.W.T. X1A 2R3
Information: Yellowknife (403) 920-8191.

The Board provides for the conservation, development and use of the water resources of the Northwest Territories in a manner that will provide the optimum benefit for all Canadians, and for the residents of the Territories in particular. Under the Act, an application must be made to the Board, and a licence issued, prior to the use of any waters or disposal of any water-borne waste. The requirement for application applies equally to departments and agencies of the federal government. The only exclusions are the use of water for domestic purposes, for extinguishing a fire, or on an emergency basis, for controlling or preventing a flood, and exempted uses under the Regulations.

Minister responsible:

Minister of Indian Affairs and Northern Development

Official Languages (Office of the Commissioner of)

Head office
110 O'Connor Street
Ottawa, Ontario K1A 0T8
Regional offices: Edmonton, Winnipeg, Sudbury, Montreal, Moncton.
Information: Ottawa/Hull (613) 995-7717 (collect calls are accepted).

The Commissioner of Official Languages ensures that Canada's two official languages, English and

French, enjoy equality of status and equal rights and privileges in all federal institutions.
The Commissioner reports directly to Parliament.

Pension Appeals Board

PO Box 8567
Postal Terminal
Ottawa, Ontario K1G 3H9
Information: Ottawa/Hull (613) 995-0612.

The Pension Appeals Board, established under the Canada Pension Plan Act, hears appeals under the Canada Pension Plan and under certain provincial pension plans. The Board consists of judges of the Federal Court or of a superior, district or county court of a province.

Minister responsible:

Minister of Health and Welfare

Petro-Canada

Head office
150 6th Avenue Southwest
(PO Box 2844)
Calgary, Alberta T2P 3E3
Other offices: Ottawa.
Information: Calgary (403) 296-5850 (Public Affairs).

Petro-Canada is a Crown corporation operating on a commercial mandate. It explores for and produces oil and natural gas and refines and markets petroleum products. It is the largest Canadian-owned oil and gas company, and is focused on meeting the needs of Canadians today while developing the new sources of energy they will need in the future.

Minister responsible:

Minister of Energy, Mines and Resources

Petroleum Monitoring Agency

580 Booth Street
Ottawa, Ontario K1A 0E4
Information: Ottawa/Hull (613) 992-3300.

The Agency's goals are to provide the federal government and the Canadian public with comprehensive and objective information on and analysis of the financial performance of the petroleum industry in Canada.

Minister responsible:

Minister of Energy, Mines and Resources

Prairie Farm Rehabilitation Administration

Head office

Motherwell Building

1901 Victoria Avenue

Regina, Saskatchewan S4P 0R5

Liaison office: Ottawa.

Alberta affairs office: Edmonton.

Manitoba affairs office: Winnipeg.

Geotechnical division: Saskatoon.

Regional engineering divisions: Calgary, Regina, Winnipeg.

District engineering offices: Lethbridge.

Project offices: Cutbank.

Senior soil conservationists: Winnipeg, Saskatoon, Edmonton.

Area soil conservationists: Lethbridge, Hanna, Peace River, Vegreville, Rosetown, Swift Current, Watrous, Weyburn, Brandon, Morden, Dauphin.

Area soil and water conservation offices: Hanna, Rosetown, Swift Current, Watrous, Weyburn, Brandon.

Local soil and water conservation offices: throughout the Prairie provinces.

Irrigation division: Consul, Eastend, Maple Creek, Rush Lake, Swift Current, Val Marie.

Demonstration farm: Outlook.

Tree nursery division: Indian Head.

Hydraulics laboratory: Regina.

Community pastures: throughout the Prairie provinces.

Bull stations: Maple Creek, McAuley.

Information: Regina (306) 780-5070 or 780-5071, or any office listed above.

The Prairie Farm Rehabilitation Administration provides ongoing programs and projects to conserve and develop the soil and water resources of Manitoba, Saskatchewan and Alberta. These activities are designed to develop and promote improved systems of farm practice, tree culture, water supply and land use that will result in greater economic security for residents of the areas. PFRA is also responsible for the administration of the Agricultural Service Centres program for the development of water supply and sewage disposal systems in selected Prairie communities and the implementation aspects of the Canada-Manitoba and Canada-Saskatchewan Interim Subsidiary Agreements on Water for Regional Economic Expansion and Drought Proofing.

Minister responsible:

Minister of Agriculture

Privatization and Regulatory Affairs (Office of)

Heritage Place

155 Queen Street

6th Floor

Ottawa, Ontario K1A 1J2

Information: Ottawa/Hull (613) 957-4375.

The Office of Privatization and Regulatory Affairs has two main objectives; the divestiture of selected Crown corporations and the improved management of the regulatory process.

Minister responsible:

Minister responsible for Privatization and Regulatory Affairs

Public Service Commission

Head office

L'Esplanade Laurier, West Tower

300 Laurier Avenue West

Ottawa, Ontario K1A 0M7

Regional and district offices: Whitehorse, Yellowknife, Vancouver, Edmonton, Regina, Winnipeg, Toronto, Ottawa, Montreal, Quebec (Sillery), Moncton, Halifax, Charlottetown, St. John's.

Information: Ottawa/Hull (613) 996-5010.

The Public Service Commission (PSC) is a politically independent agency accountable to Parliament for the administration of the Public Service Employment Act. Under the terms of this Act, the Commission must ensure that the merit principle, as determined by the Commission, is upheld in all public service staffing operations. The objective of the Commission is to assist in the maintenance of a competent public service by ensuring that the best qualified persons are recruited to or promoted within the public service, that qualified employees are deployed to meet operational requirements and that certain training services are provided on behalf of the Treasury Board.

Minister responsible:

Secretary of State

Public Service Staff Relations Board

C.D. Howe Building

West Tower, 6th Floor

240 Sparks Street

PO Box 1525, Station B

Ottawa, Ontario K1P 5V2

Information: Ottawa/Hull (613) 990-1800.

The Board administers the Public Service Staff Relations Act, which governs collective bargaining,

the grievance process, and the adjudication procedure for the federal public service.

Minister responsible:

President of the Queen's Privy Council for Canada

Public Works Canada

Head office

Sir Charles Tupper Building
Confederation Heights
Ottawa, Ontario K1A 0M2

Regional offices: Vancouver, Edmonton, Toronto (Willowdale), Hull, Montreal, Halifax.

Field offices: throughout Canada.

Information: Ottawa/Hull (613) 998-7724.

The Department is responsible for the management of the public works of Canada and the federal real estate properties. The Minister of Public Works is also responsible for the Canada Museums Construction Corporation.

Minister responsible:

Minister of Public Works

Revenue Canada, Customs and Excise

Head office

Connaught Building
Mackenzie Avenue
Ottawa, Ontario K1A 0L5

Regional offices: (Customs) Vancouver, Calgary, Winnipeg, Windsor, Hamilton, Toronto, Ottawa, Montreal, Quebec, Halifax; (Excise) Vancouver, Calgary, Winnipeg, London, Toronto, Ottawa, Montreal, Quebec, Halifax.

Other offices, including district and customs offices: throughout Canada.

Information: Ottawa/Hull (613) 957-0275.

Customs and Excise is responsible for assessing and collecting duties and taxes on imported and domestically produced goods, as well as on the transportation of persons by air. It controls the international movement of persons and goods, and provides Canadian industry with the protection to which it is entitled under the customs laws. The Customs Act, the Customs Tariff, the Special Import Measures Act, the Excise Act and the Excise Tax Act are administered by Customs and Excise, as are statutes of other government departments and agencies that relate to the international movement of persons and goods.

Minister responsible:

Minister of National Revenue

Revenue Canada, Taxation

Head office

875 Heron Road
Ottawa, Ontario K1A 0L8

District offices: all provincial capitals (except Fredericton) as well as Vancouver, Penticton, Calgary, Saskatoon, Thunder Bay, Sudbury, Hamilton, Windsor, London, Kitchener, St. Catharines, Mississauga, Scarborough, Belleville (with sub-office in Kingston), Ottawa, Rouyn, Laval, Montreal, Saint-Hubert, Sherbrooke, Quebec district office sub-offices in Chicoutimi, Rimouski and Trois-Rivières, Saint John (with a sub-office in Bathurst), Sydney.

Information: any district taxation office.

Revenue Canada Taxation administers the government's tax policy, which is initiated by the Department of Finance. It assesses and collects individual and corporate income taxes under the Income Tax Act of Canada. Individual income tax is collected for all provinces except Quebec, and corporate tax is collected for all provinces except Quebec, Ontario and Alberta. The Department also collects Canada Pension Plan contributions and unemployment insurance premiums.

Minister responsible:

Minister of National Revenue

Royal Canadian Mint

Head office

320 Sussex Drive
Ottawa, Ontario K1A 0G8

Regional offices: Winnipeg, Ottawa.

Information: Ottawa/Hull (613) 993-3500 (administration); to order Olympic gold coins call, in the Montreal area, 1-800-361-0170, and in the rest of Canada, 1-800-267-1871.

The Mint is authorized to produce and supply Canadian coins, including circulating, collector and bullion coinage. The Mint also produces medals, medallions, tokens, trade dollars, plaques and badges and is authorized to melt, assay and refine gold. It accepts contracts to mint coinage for other countries as well.

Minister responsible:

Minister of Supply and Services

Royal Canadian Mounted Police

Head office

Headquarters Building
1200 Vanier Parkway
Ottawa, Ontario K1A 0R2

Local offices and detachments: throughout Canada.

Information: Ottawa/Hull (613) 993-7267.

As the federal police force, the RCMP is responsible for the prevention and detection of offences committed against federal statutes and for the provision of investigative and protective services to federal departments and agencies.

Minister responsible:

Solicitor General of Canada

The Saint Lawrence Seaway Authority

Head office

Suite 1400

Constitution Square,

360 Albert Street

Ottawa, Ontario K1R 7X7

Regional offices: Cornwall, St. Catharines, Montreal (Saint-Lambert).

Information: Ottawa/Hull (613) 598-4614.

The Authority was incorporated for the purposes of constructing, operating and maintaining, either on its own in Canada or in conjunction with works undertaken by an appropriate authority in the United States, a deep waterway between the Port of Montreal and Lake Erie; constructing, operating and maintaining alone or jointly or in conjunction with an appropriate authority in the United States, bridges connecting Canada with the United States; acquiring shares or property of any bridge company; and operating and managing bridges.

Minister responsible:

Minister of Transport

Science Council of Canada

Berger Building, 17th Floor

100 Metcalfe Street

Ottawa, Ontario K1P 5M1

Information: Ottawa/Hull (613) 992-1142.

The Council's major responsibilities are to analyze science and technology policy issues; recommend policy direction to government; keep the public informed about the impact of science and technology in Canada; and stimulate discussion of science and technology policy among governments, industry and academic institutions. The Council operates at "arm's length" from government, designing its own program of research and publishing its findings at its own discretion.

Minister responsible:

Minister of State for Science and Technology

Secretary of State

Head office

Jules Leger Building

15 Eddy Street

Hull, Quebec

(Mail: Ottawa, Ontario K1A 0M5)

Regional offices: Vancouver, Edmonton, Regina, Winnipeg, Toronto, Montreal, Moncton, Halifax, St. John's.

Local offices and courts of Canadian citizenship: throughout Canada.

Information: Ottawa/Hull (819) 997-0055.

The Secretary of State supports youth and multiculturalism and encourages the use of the two official languages. It has a central responsibility for the Canadian government's domestic human rights interests, and is responsible for the administration of the Citizenship Act and for organizing and managing ceremonial and special occasions.

Minister responsible:

Secretary of State and Minister Responsible for Multiculturalism

Social Sciences and Humanities Research Council of Canada

255 Albert Street

PO Box 1610

Ottawa, Ontario K1P 6G4

Information: Ottawa/Hull (613) 992-0691.

The Council's objective is to promote and assist research and scholarship in the social sciences and humanities.

Minister responsible:

Secretary of State

Solicitor General Canada

Central office

Sir Wilfrid Laurier Building

340 Laurier Avenue West

Ottawa, Ontario K1A 0P8

Regional offices: Vancouver, Edmonton, Saskatoon, Toronto, Montreal, Moncton.

Information: Ottawa/Hull (613) 991-3283; victim resource centre, toll-free 1-800-267-0454.

The Ministry of the Solicitor General brings the major federal operational elements concerned with the administration of the criminal justice system under the direction and supervision of the Solicitor General. He/she is responsible for internal security, law enforcement, penitentiaries, paroles

and remissions, and has jurisdiction over Correctional Service Canada, the National Parole Board, the RCMP and the Canadian Security Intelligence Service.

Minister responsible:

Solicitor General of Canada

Standards Council of Canada

Head office

350 Sparks Street, Suite 1200

Ottawa, Ontario K1P 6N7

Information: Ottawa/Hull (613) 238-3222.

The Council promotes voluntary standardization in fields relating to the construction, manufacture, production, quality, performance and safety of buildings, structures, manufactured articles, products and other goods not expressly provided for by law.

Minister responsible:

Minister of Consumer and Corporate Affairs

Statistics Canada

Head office

R.H. Coats Building

Tunney's Pasture

Ottawa, Ontario K1A 0T6

Regional offices: Vancouver, Calgary, Edmonton, Regina, Winnipeg, Toronto, Sturgeon Falls, Montreal, Halifax, St. John's.

Information: Ottawa/Hull (613) 951-8116.

As Canada's central statistical agency, Statistics Canada collects, processes, analyzes and disseminates data on virtually every aspect of the nation's society and economy, and provides inquiry and consultation services to statistical users. In addition, the agency co-operates in the statistical activities of other federal and provincial departments and fulfils a range of international statistical commitments.

Minister responsible:

Minister of Supply and Services

Status of Women Canada

151 Sparks Street, Room 1005

Ottawa, Ontario K1A 1C3

Information: Ottawa/Hull (613) 995-7835.

Status of Women activities in the federal government: this office monitors federal department policies and programs to promote equality between

the sexes, co-ordinates measures at the federal level to improve the status of women, and ensures federal-provincial and non-governmental consultation on status of women questions.

Minister responsible:

Minister responsible for the Status of Women

Superintendent of Financial Institutions Canada (Office of the)

Head office

255 Albert Street

Ottawa, Ontario K1A 0H2

Regional offices: Vancouver, Winnipeg, Toronto, Montreal.

Information: Ottawa/Hull (613) 990-7788.

The Superintendent of Financial Institutions is responsible for regulating and supervising banks, insurance, trust, loan and investment companies, and co-operative credit associations that are chartered, licensed or registered by the federal government, and for supervising federally regulated pension plans. The Office of the Superintendent also has a responsibility to provide actuarial reports on various government pension programs.

Minister responsible:

Minister of State for Finance
(under the authority of the Minister of Finance)

Supply and Services Canada

Head office

Place du Portage

Phase III

11 Laurier Street

Hull, Quebec

(Mail: Ottawa, Ontario K1A 0S5)

Regional offices: Vancouver, Winnipeg, Calgary, Toronto (Mississauga), Ottawa, Montreal, Quebec, Halifax.

Other offices: throughout Canada.

Crown Assets Distribution Centres: Vancouver (Richmond), Edmonton, Winnipeg, Mississauga, Ottawa, Hull, Montreal, Dartmouth.

Information: Ottawa/Hull (819) 997-6363; Crown Assets Distribution Centres, Ottawa/Hull (819) 994-0074.

Supply and Services Canada is the chief purchasing agent and central accountant for the Government of Canada.

Minister responsible:

Minister of Supply and Services

Telefilm Canada

Head office

National Bank of Canada Tower, 14th Floor
600 de la Gauchetière Street West
Montreal, Quebec H3B 4L2

Regional offices: Vancouver, Toronto, Halifax,
Los Angeles (US), Paris (France), London
(England).

Information concerning programs: Montreal (514)
283-6363; Los Angeles office (213) 859-0268, 144
South Beverly Drive, Suite 400, Beverly Hills,
California (US), 90212; Paris office (33)
1-4563.70.45, 15 de Berri Street, 75008 Paris,
France; London office (44.1) 437-8308, 55/59
Oxford Street, London, England W1R 1RD.

Telefilm Canada, formerly known as the Canadian Film Development Corporation, is charged with fostering the growth and development of the private sector of the Canadian film industry. It does not produce or distribute programming itself, but finances the production and commercial distribution of feature films and television programs produced by Canadian companies. Telefilm Canada is headed by a board of directors and a chairman appointed by the Governor-in-Council, and is financed by a yearly appropriation from Parliament.

Minister responsible:

Minister of Communications

Transport Canada

Head office

Transport Canada Building
Place de Ville
Tower C, 21st Floor
330 Sparks Street
Ottawa, Ontario K1A 0N5

Regional offices (Aviation Group and Airports Authority Group): Vancouver, Edmonton, Winnipeg, Toronto (Willowdale), Montreal (Dorval), Moncton; (Marine Group): Vancouver, Toronto, Quebec, Dartmouth, St. John's; (Surface Group): Winnipeg — grain transportation, Sainte-Thérèse (Blainville) — motor vehicle testing, St. John's — ferries; (Transport Dangerous Goods): Vancouver, Saskatoon, Winnipeg, Toronto, Montreal, Halifax; (Policy and Co-ordination Group and Ferry Services): St. John's.

Pilotage Authority offices: Vancouver, Cornwall, Montreal, Halifax.

Other offices: throughout Canada.

Information: Ottawa/Hull (613) 996-5861.

The jurisdiction of the Department covers all federally regulated railways, as well as the Aviation, Airports Authority, Marine and Surface Groups.

Minister responsible:

Minister of Transport

Treasury Board of Canada

L'Esplanade Laurier

140 O'Connor Street
Ottawa, Ontario K1A 0R5

Information: Ottawa/Hull (613) 957-2400.

The Treasury Board of Canada is a committee of six members of the Queen's Privy Council, including the President of the Treasury Board and the Minister of Finance. The Board advises Cabinet on the selection of programs and projects that will achieve the government's objectives in the most effective manner in accordance with its priorities, and it promotes the efficient use of the human, financial, real property and material resources needed by departments and agencies to carry out their programs and projects.

Minister responsible:

President of the Treasury Board

Veterans Affairs

Head office

Daniel J. MacDonald Building
161 Grafton Street
PO Box 7700
Charlottetown, Prince Edward Island
C1A 8M9

Field Operations Branch
East Memorial Building, 5th Floor
284 Wellington Street
Ottawa, Ontario K1A 0P4

Information: Charlottetown (902) 566-8457;
Ottawa/Hull (613) 992-4234.

The Department of Veterans Affairs provides support for the economic, social, mental and physical well-being of veterans, certain civilians and their dependents.

The Veterans Portfolio is composed of the Department of Veterans Affairs and three associated agencies: the **Bureau of Pensions Advocates**, the **Canadian Pension Commission** and the **Veterans Appeal Board**.

Minister responsible:

Minister of Veterans Affairs

(the Minister of Veterans Affairs is also the Canadian agent for the Commonwealth War Graves Commission)

Bureau of Pensions Advocates

Head office

Daniel J. MacDonald Building, 2nd Floor

161 Grafton Street

PO Box 7700

Charlottetown, Prince Edward Island

C1A 8M9

District offices: Victoria, Vancouver, Penticton, Edmonton, Calgary, Saskatoon, Regina, Winnipeg, North Bay, London, Hamilton, Toronto, Kingston, Ottawa, Montreal, Quebec, Saint John, Halifax, Charlottetown, St. John's.

Information: Charlottetown (902) 566-8641.

Legal assistance: the Bureau provides free legal service to applicants and pensioners in accordance with the Pension Act and allied statutes and orders. This service includes the counselling of applicants and the preparation and presentation of claims to adjudicating bodies, the Canadian Pension Commission, and the Veterans Appeal Board.

Canadian Pension Commission

Head office

Daniel J. MacDonald Building, 2nd Floor

PO Box 9900

Charlottetown, Prince Edward Island

C1A 8V6

District offices: provincial capitals (except Fredericton) as well as Vancouver, Calgary, Saskatoon, Hamilton, London, Peterborough, Kingston, North Bay, Ottawa, Montreal, Saint John.

Information: Charlottetown (902) 566-8851 or 566-8869, or nearest district office.

The Commission has responsibility for veterans' pensions as compensation for disability or death related to military service and as compensation to former prisoners of war.

Veterans Appeal Board

Head office

Daniel J. MacDonald Building, Ground Floor

161 Grafton Street

PO Box 7700

Charlottetown, Prince Edward Island

C1A 8M9

Information: Charlottetown (902) 566-8620.

The Board provides a system of appeals, to ex-members of the Armed Forces, the Royal Canadian Mounted Police, certain civilians and/or their dependents, for decisions rendered by the Entitlement and/or Assessment Boards of the Canadian

Pension Commission and rulings made by the Department of Veterans Affairs under the Pension Act, the Civilian War Pensions and Allowances Act, the War Veterans Allowance Act and other related statutes. The Board also interprets the legislation and is the final appeal level within Veterans Affairs.

**Commonwealth War Graves Commission
Canadian Agency**

East Memorial Building, 1st Floor

284 Wellington Street

Ottawa, Ontario K1A 0P4

Information: Ottawa/Hull (613) 992-3224.

The Commission's duties are to mark and maintain the graves of members of the Commonwealth Forces who died in the two World Wars, to build memorials to those whose graves are unknown, and to keep records and registers. The Canadian agency carries out these duties in North America. It also provides information to the public on the location of Commonwealth war graves and memorials throughout the world.

Western Economic Diversification

Head office

Suite 1500

Canada Place

9700 Jasper Avenue

Edmonton, Alberta T5J 4H7

Regional offices: British Columbia, Alberta, Saskatchewan, Manitoba.

Information: Edmonton (403) 495-4164.

The Department of Western Economic Diversification Canada is responsible for promoting the diversification of the Western Canadian economy and for advancing the West's interests in national economic policy. The Western Diversification program helps Western Canadian business develop new products, new markets, new technology, import replacements and improved industry-wide productivity.

Minister responsible:

Minister of State, Grains and Oilseed

Yukon Territories Water Board

Suite 302

4114 Fourth Avenue

Whitehorse, Yukon Y1A 4N7

Information: Yukon (403) 668-4884.

Under the authority of the Northern Inland Waters Act, the Board regulates the use of water in the Yukon Territory through the issuance of Water Use Licences. The objects of the Board are to provide for the conservation, development, and utilization of the water resources in a manner that

will provide the optimum benefit for all Canadians and the residents of the Yukon Territory in particular.

Minister responsible:

Minister of Indian Affairs and Northern
Development

APPENDIX B

FEDERAL LEGISLATION

List of public general acts passed by the 33rd and 34th Parliaments of Canada from May 1987 to December 1988. For further details, consult the *Statutes of Canada*. The date of royal assent follows each chapter number.

Second session, 33rd Parliament, Session 1987

Chapter 15 (May 28, 1987). Softwood Lumber Products Export Charge Act.

Chapter 16 (May 28, 1987). An Act to amend the Export and Import Permits Act.

Chapter 17 (June 25, 1987). Unemployment Insurance Benefit Entitlement Adjustments (Pension Payments) Act.

Chapter 18 (June 25, 1987). Canadian Exploration and Development Incentive Program Act.

Chapter 19 (June 25, 1987). Bell Canada Act.

Chapter 20 (June 25, 1987). Appropriation Act No. 3, 1987-88.

Chapter 21 (June 30, 1987). An Act to amend the Judges Act, the Federal Court Act and the Tax Court of Canada Act.

Chapter 22 (June 30, 1987). Shipping Conferences Exemption Act, 1987.

Chapter 23 (June 30, 1987). Financial Institutions and Deposit Insurance System Amendment Act.

Chapter 24 (June 30, 1987). An Act to amend the Criminal Code and the Canada Evidence Act.

Chapter 25 (June 30, 1987). Veterans Appeal Board Act.

Chapter 26 (June 30, 1987). An Act to amend certain Acts relating to financial institutions.

Chapter 27 (June 30, 1987). Forgiveness of Certain Official Development Assistance Debts Act.

Chapter 28 (June 30, 1987). An Act to amend the Small Businesses Loans Act.

Chapter 29 (June 30, 1987). An Act to amend the Customs Tariff and the Duties Relief Act.

Chapter 30 (June 30, 1987). An Act to amend the Hazardous Products Act and the Canada Labour

Code, to enact the Hazardous Materials Information Review Act and to amend other Acts in relation thereto.

Chapter 31 (June 30, 1987). Farm Improvement and Marketing Cooperatives Loans Act.

Chapter 32 (June 30, 1987). An Act to amend the Customs Act.

Chapter 33 (June 30, 1987). An Act to amend the Food and Drugs Act.

Chapter 34 (August 28, 1987). National Transportation Act, 1987.

Chapter 35 (August 28, 1987). Motor Vehicle Transport Act, 1987.

Chapter 36 (August 28, 1987). Maintenance of Railway Operations Act, 1987.

Chapter 37 (September 16, 1987). An Act to amend the Criminal Code, the Immigration Act, 1976 and the Citizenship Act.

Chapter 38 (October 8, 1987). Canagrex Dissolution Act.

Chapter 39 (October 8, 1987). An Act to amend the Bretton Woods and Related Agreements Act.

Chapter 40 (October 16, 1987). Postal Services Continuation Act, 1987.

Chapter 41 (November 19, 1987). An Act to amend the Patent Act and to provide for certain matters in relation thereto.

Chapter 42 (November 19, 1987). An Act to amend the Supreme Court Act and to amend various other Acts in consequence thereof.

Chapter 43 (December 17, 1987). An Act to amend the Royal Canadian Mint Act and the Currency Act.

Chapter 44 (December 17, 1987). An Act to amend the Unemployment Insurance Act, 1971.

Chapter 45 (December 17, 1987). An Act to amend the Pension Act, the War Veterans Allowance Act, to repeal the Compensation for Former Prisoners of War Act and to amend another Act in relation thereto.

Chapter 46 (December 17, 1987). An Act to amend the Income Tax Act, a related Act, the Canada

Pension Plan and the Unemployment Insurance Act, 1971.

Chapter 47 (December 17, 1987). An Act to amend the Judges Act.

Chapter 48 (December 17, 1987). Revised Statutes of Canada, 1985 Act.

Chapter 49 (December 17, 1987). Customs Tariff.

Chapter 50 (December 17, 1987). An Act to amend the Excise Tax Act.

Chapter 51 (December 17, 1987). An Act to amend the Canada Labour Code.

Chapter 52 (December 17, 1987). An Act to amend an Act respecting the Hudson Bay Mining and Smelting Co., Limited.

Chapter 53 (December 17, 1987). An Act to amend the Citizenship Act (period of residence).

Chapter 54 (December 17, 1987). Appropriation Act No. 4, 1987-88.

Second session, 33rd Parliament, Session 1988

Chapter 1 (January 20, 1988). Prince Rupert Grain Handling Operations Act.

Chapter 2 (February 4, 1988). Miscellaneous Statute Law Amendment Act, 1987.

Chapter 3 (February 4, 1988). Appropriation Act No. 5, 1987-88.

Chapter 4 (March 22, 1988). An Act to amend the Corporations and Labour Unions Returns Act.

Chapter 5 (March 22, 1988). Fruit and Vegetable Customs Orders Validation Act.

Chapter 6 (March 22, 1988). An Act to amend the Currency Act.

Chapter 7 (March 22, 1988). Borrowing Authority Act, 1988-89.

Chapter 8 (March 29, 1988). An Act to amend the Unemployment Insurance Act, 1971.

Chapter 9 (March 29, 1988). Appropriation Act No. 6, 1987-88.

Chapter 10 (March 29, 1988). Appropriation Act No. 1, 1988-89.

Chapter 11 (April 27, 1988). Emergency Preparedness Act.

Chapter 12 (April 27, 1988). Northern Canada Power Commission (Share Issuance and Sale Authorization) Act.

Chapter 13 (May 25, 1988). Animal Pedigree Act.

Chapter 14 (May 25, 1988). An Act to amend the Customs Tariff.

Chapter 15 (June 8, 1988). An Act to amend the Copyright Act and to amend other Acts in consequence thereof.

Chapter 16 (June 8, 1988). An Act to amend the Western Arctic (Inuvialuit) Claims Settlement Act.

Chapter 17 (June 8, 1988). Western Economic Diversification Act.

Chapter 18 (June 14, 1988). An Act to amend the Excise Tax Act and the Excise Act.

Chapter 19 (June 14, 1988). An Act to amend the Cape Breton Development Corporation Act.

Chapter 20 (June 28, 1988). Tobacco Products Control Act.

Chapter 21 (June 28, 1988). Non-smokers' Health Act.

Chapter 22 (June 28, 1988). Canadian Environmental Protection Act.

Chapter 23 (June 28, 1988). An Act to amend the Indian Act (designated lands).

Chapter 24 (June 28, 1988). An Act to amend the Customs Tariff (code 9956).

Chapter 25 (June 28, 1988). Appropriation Act No. 2, 1988-89.

Chapter 26 (July 7, 1988). An Act to amend the National Transportation Act, 1987.

Chapter 27 (July 7, 1988). Canada Agricultural Products Act.

Chapter 28 (July 21, 1988). Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation Act.

Chapter 29 (July 21, 1988). Emergencies Act.

Chapter 30 (July 21, 1988). An Act to amend the Criminal Code (victims of crime).

Chapter 31 (July 21, 1988). Canadian Multiculturalism Act.

Chapter 32 (July 21, 1988). An Act to amend the National Housing Act and the Canada Mortgage and Housing Corporation Act and to repeal certain enactments in consequence thereof.

Chapter 33 (July 21, 1988). An Act to amend the Canada Labour Code.

Chapter 34 (July 21, 1988). Canadian Exploration Incentive Program Act.

Chapter 35 (July 21, 1988). An Act to amend the Immigration Act, 1976 and to amend other Acts in consequence thereof.

Chapter 36 (July 21, 1988). An Act to amend the Immigration Act, 1976 and the Criminal Code in consequence thereof.

Chapter 37 (July 28, 1988). Mutual Legal Assistance in Criminal Matters Act.

Chapter 38 (July 28, 1988). Official Languages Act.

Chapter 39 (July 28, 1988). Indian Lands Agreement (1986) Act.

Chapter 40 (July 28, 1988). Railway Safety Act.

Chapter 41 (July 28, 1988). Eldorado Nuclear Limited Reorganization and Divestiture Act.

Chapter 42 (July 28, 1988). An Act to amend the Bretton Woods and Related Agreements Act.

Chapter 43 (July 28, 1988). An Act to change the name of the electoral district of Chapleau.

Chapter 44 (August 18, 1988). Air Canada Public Participation Act.

Chapter 45 (August 18, 1988). An Act to amend the Western Grain Stabilization Act.

Chapter 46 (August 18, 1988). An Act to amend the Canada Grain Act and other Acts in consequence thereof.

Chapter 47 (August 18, 1988). An Act to amend the Canadian Wheat Board Act.

Chapter 48 (August 18, 1988). An Act to amend the National Parks Act and to amend an Act to amend the National Parks Act.

Chapter 49 (August 18, 1988). An Act to amend various Acts to give effect to the reconstitution of the Quebec Provincial Court, Court of the Sessions of the Peace and Youth Court as the Court of Quebec.

Chapter 50 (August 18, 1988). Government Organization Act, Atlantic Canada, 1987.

Chapter 51 (September 13, 1988). An Act to amend the Criminal Code, the Food and Drugs Act and the Narcotic Control Act.

Chapter 52 (September 13, 1988). An Act to amend the Indian Act (death rules).

Chapter 53 (September 13, 1988). Lobbyists Registration Act.

Chapter 54 (September 13, 1988). An Act to amend the National Capital Act.

Chapter 55 (September 13, 1988). An Act to amend the Income Tax Act, the Canada Pension Plan, the Unemployment Insurance Act, 1971, the Federal-Provincial Fiscal Arrangements and Federal Post-Secondary Education and Health Contributions Act, 1977 and certain related Acts.

Chapter 56 (September 13, 1988). Canadian International Trade Tribunal Act.

Chapter 57 (September 13, 1988). An Act to amend the Indian Act (minors' funds and surviving spouse's preferential share).

Chapter 58 (September 13, 1988). Canadian Centre on Substance Abuse Act.

Chapter 59 (September 13, 1988). An Act to amend the Blue Water Bridge Authority Act.

Chapter 60 (September 13, 1988). An Act to amend the Criminal Code (instruments and literature for illicit drug use).

Chapter 61 (September 22, 1988). An Act to amend the Tax Court of Canada Act and other Acts in consequence thereof.

Chapter 62 (September 22, 1988). Heritage Railway Stations Protection Act.

Chapter 63 (September 30, 1988). An Act to amend the Unemployment Insurance Act, 1971.

Chapter 64 (September 30, 1988). International Centre for Human Rights and Democratic Development Act.

First session, 34th Parliament, Session 1988

Chapter 65 (December 30, 1988). Canada-United States Free Trade Agreement Implementation Act.

APPENDIX C

POLITICAL UPDATE

To supplement the information in Chapter 19, Government, the following lists give the names of the Cabinet Ministers of Canada in April 1989, December 1988, September 1988 and February 1988, the Senate, members of the Privy Council and the executive councils of the provinces and territories. Data on members of the House of Commons voted into office in federal general elections are given in Chapter 19, Table 19.4.

Cabinet ministers

Members of the 25th ministry. In April 1989 the following were Ministers of the federal Cabinet, according to precedence:

The Rt. Hon. Martin Brian Mulroney
Prime Minister

The Rt. Hon. Charles Joseph Clark
Secretary of State for External Affairs

The Hon. John Carnell Crosbie
Minister for International Trade

The Hon. Donald Frank Mazankowski
Deputy Prime Minister, President of the Queen's Privy Council for Canada and Minister of Agriculture

The Hon. Elmer MacIntosh MacKay
Minister of Public Works and Minister for the purposes of the Atlantic Canada Opportunities Agency Act

The Hon. Arthur Jacob Epp
Minister of Energy, Mines and Resources

The Hon. Robert R. de Cotret
President of the Treasury Board

The Hon. Henry Perrin Beatty
Minister of National Health and Welfare

The Hon. Michael Holcombe Wilson
Minister of Finance

The Hon. Harvie Andre
Minister of Regional Industrial Expansion, and Minister of State for Science and Technology

The Hon. Otto John Jelinek
Minister of National Revenue

The Hon. Thomas Edward Siddon
Minister of Fisheries and Oceans

The Hon. Charles James Mayer
Minister of Western Economic Diversification, and Minister of State for Grains and Oilseeds

The Hon. William Hunter McKnight
Minister of National Defence

The Hon. Benoît Bouchard
Minister of Transport

The Hon. Marcel Masse
Minister of Communications

The Hon. Barbara Jean McDougall
Minister of Employment and Immigration

The Hon. Gerald Stairs Merrithew
Minister of Veterans Affairs

The Hon. Monique Vézina
Minister of State for Employment and Immigration, and Minister of State for Seniors

The Hon. Frank Oberle
Minister of State for Forestry

The Hon. Lowell Murray
Leader of the Government in the Senate and Minister of State for Federal-Provincial Relations

The Hon. Paul Wyatt Dick
Minister of Supply and Services

The Hon. Pierre H. Cadieux
Minister of Indian Affairs and Northern Development

The Hon. Jean J. Charest
Minister of State for Youth, Minister of State for Fitness and Amateur Sport, and Deputy Leader of the Government in the House of Commons

The Hon. Thomas Hockin
Minister of State for Small Businesses and Tourism

The Hon. Monique Landry
Minister for External Relations

The Hon. Bernard Valcourt
Minister of Consumer and Corporate Affairs

The Hon. Gerry Weiner
Secretary of State of Canada, and Minister of State for Multiculturalism and Citizenship

The Hon. Douglas Grinslade Lewis
Minister of Justice, Attorney General of Canada
and Leader of the Government in the House
of Commons

The Hon. Pierre Blais
Solicitor General of Canada and Minister of
State for Agriculture

The Hon. Lucien Bouchard
Minister of the Environment

The Hon. John Horton McDermid
Minister of State for Privatization and
Regulatory Affairs

The Hon. Shirley Martin
Minister of State for Transport

The Hon. Mary Collins
Associate Minister of National Defence

The Hon. Alan Redway
Minister of State for Housing

The Hon. William Charles Winegard
Minister of State for Science and Technology

The Hon. Kim Campbell
Minister of State for Indian Affairs and
Northern Development

The Hon. Jean Corbeil
Minister of Labour

The Hon. Gilles Loiselle
Minister of State for Finance

In December 1988 the following were Ministers
of the federal Cabinet, according to precedence:

The Rt. Hon. Martin Brian Mulroney
Prime Minister

The Rt. Hon. Charles Joseph Clark
Secretary of State for External Affairs, Acting
Minister of Justice and Attorney General of
Canada

The Hon. John Carnell Crosbie
Minister for International Trade

The Hon. Donald Frank Mazankowski
Deputy Prime Minister, President of the
Queen's Privy Council for Canada and Min-
ister of Agriculture

The Hon. Elmer MacIntosh MacKay
Minister of National Revenue

The Hon. Arthur Jacob Epp
Minister of National Health and Welfare

The Hon. Robert R. de Cotret
Minister of Regional Industrial Expansion, and
Minister of State for Science and Technology

The Hon. Henry Perrin Beatty
Minister of National Defence and Acting Soli-
citor General of Canada

The Hon. Michael Holcombe Wilson
Minister of Finance

The Hon. Harvie Andre
Minister of Consumer and Corporate Affairs

The Hon. Otto John Jelinek
Minister of Supply and Services, and Acting
Minister of Public Works

The Hon. Thomas Edward Siddon
Minister of Fisheries and Oceans

The Hon. Charles James Mayer
Minister of State for Grains and Oilseeds

The Hon. William Hunter McKnight
Minister of Indian Affairs and Northern
Development, and Minister of Western Eco-
nomic Diversification

The Hon. Benoît Bouchard
Minister of Transport

The Hon. Marcel Masse
Minister of Energy, Mines and Resources

The Hon. Barbara Jean McDougall
Minister of Employment and Immigration

The Hon. Gerald Stairs Merrithew
Minister of Veterans Affairs and Minister for
the purposes of the Atlantic Canada Oppor-
tunities Agency Act

The Hon. Monique Vézina
Minister of State for Employment and Immigra-
tion, and Minister of State for Seniors

The Hon. Frank Oberle
Minister of State for Science and Technology,
and Acting Minister of State for Forestry

The Hon. Lowell Murray
Leader of the Government in the Senate, Min-
ister of State for Federal-Provincial Relations
and Acting Minister of Communications

The Hon. Paul Wyatt Dick
Associate Minister of National Defence

The Hon. Pierre H. Cadieux
Minister of Labour

The Hon. Jean J. Charest
Minister of State for Youth, and Minister of
State for Fitness and Amateur Sport

The Hon. Thomas Hockin
Minister of State for Finance

The Hon. Monique Landry
Minister for External Relations

The Hon. Bernard Valcourt
Minister of State for Small Businesses and
Tourism, and Minister of State for Indian
Affairs and Northern Development

The Hon. Gerry Weiner
Minister of State for Multiculturalism and
Citizenship

The Hon. Douglas Grinslade Lewis
Minister of State, Minister of State for Treasury
Board and Acting President of the Treasury
Board

The Hon. Pierre Blais
Minister of State for Agriculture

The Hon. Lucien Bouchard
Secretary of State of Canada and Acting Min-
ister of the Environment

The Hon. John Horton McDermid
Minister of State for International Trade and
Minister of State for Housing

The Hon. Shirley Martin
Minister of State for Transport

In September 1988 the following were Ministers
of the federal Cabinet, according to precedence:

The Rt. Hon. Martin Brian Mulroney
Prime Minister

The Rt. Hon. Charles Joseph Clark
Secretary of State for External Affairs

The Hon. Flora Isabel MacDonald
Minister of Communications

The Hon. John Carnell Crosbie
Minister for International Trade

The Hon. Donald Frank Mazankowski
Deputy Prime Minister, President of the
Queen's Privy Council for Canada and Min-
ister of Agriculture

The Hon. Elmer MacIntosh MacKay
Minister of National Revenue

The Hon. Arthur Jacob Epp
Minister of National Health and Welfare

The Hon. Ramon John Hnatyshyn
Minister of Justice and Attorney General of
Canada

The Hon. Robert R. de Cotret
Minister of Regional Industrial Expansion, and
Minister of State for Science and Technology

The Hon. Henry Perrin Beatty
Minister of National Defence

The Hon. Michael Holcombe Wilson
Minister of Finance

The Hon. Harvie Andre
Minister of Consumer and Corporate Affairs

The Hon. Otto John Jelinek
Minister of Supply and Services

The Hon. Thomas Edward Siddon
Minister of Fisheries and Oceans

The Hon. Charles James Mayer
Minister of State for Grains and Oilseeds

The Hon. William Hunter McKnight
Minister of Indian Affairs and Northern
Development, and Minister of Western Eco-
nomic Diversification

The Hon. Thomas Michael McMillan
Minister of the Environment

The Hon. Patricia Carney
President of the Treasury Board

The Hon. Benoît Bouchard
Minister of Transport

The Hon. James Francis Kelleher
Solicitor General of Canada

The Hon. Marcel Masse
Minister of Energy, Mines and Resources

The Hon. Barbara Jean McDougall
Minister of Employment and Immigration

The Hon. Gerald Stairs Merrithew
Minister of Veterans Affairs and Minister for
the purposes of the Atlantic Canada Oppor-
tunities Agency Act

The Hon. Monique Vézina
Minister of State for Employment and Immigra-
tion, and Minister of State for Seniors

The Hon. Stewart Donald McInnes
Minister of Public Works

The Hon. Frank Oberle
Minister of State for Science and Technology

The Hon. Lowell Murray
Leader of the Government in the Senate and
Minister of State for Federal-Provincial
Relations

The Hon. Paul Wyatt Dick
Associate Minister of National Defence

The Hon. Pierre H. Cadieux
Minister of Labour

The Hon. Jean J. Charest
Minister of State for Youth, and Minister of
State for Fitness and Amateur Sport

The Hon. Thomas Hockin
Minister of State for Finance

The Hon. Monique Landry
Minister for External Relations

The Hon. Bernard Valcourt
Minister of State for Small Businesses and
Tourism, and Minister of State for Indian
Affairs and Northern Development

The Hon. Gerry Weiner
Minister of State for Multiculturalism and
Citizenship

The Hon. Douglas Grinslade Lewis
Minister of State and Minister of State for
Treasury Board

The Hon. Pierre Blais
Minister of State for Agriculture

The Hon. Gerry St. Germain
Minister of State for Forestry

The Hon. Lucien Bouchard
Secretary of State of Canada

The Hon. John Horton McDermid
Minister of State for International Trade and
Minister of State for Housing

The Hon. Shirley Martin
Minister of State for Transport

In February 1988 the following were Ministers
of the federal Cabinet, according to precedence:

The Rt. Hon. Martin Brian Mulroney
Prime Minister

The Hon. George Harris Hees
Minister of Veterans Affairs and Minister of
State for Seniors

The Rt. Hon. Charles Joseph Clark
Secretary of State for External Affairs

The Hon. Flora Isabel MacDonald
Minister of Communications

The Hon. John Carnell Crosbie
Minister of Transport

The Hon. Donald Frank Mazankowski
Deputy Prime Minister, President of the
Queen's Privy Council for Canada and Presi-
dent of the Treasury Board

The Hon. Elmer MacIntosh MacKay
Minister of National Revenue

The Hon. Arthur Jacob Epp
Minister of National Health and Welfare

The Hon. John Wise
Minister of Agriculture

The Hon. Ramon John Hnatyshyn
Minister of Justice and Attorney General of
Canada

The Hon. David Edward Crombie
Secretary of State of Canada

The Hon. Robert R. de Cotret
Minister of Regional Industrial Expansion, and
Minister of State for Science and Technology

The Hon. Henry Perrin Beatty
Minister of National Defence

The Hon. Michael Holcombe Wilson
Minister of Finance

The Hon. Harvie Andre
Minister of Consumer and Corporate Affairs

The Hon. Otto John Jelinek
Minister of State for Fitness and Amateur Sport

The Hon. Thomas Edward Siddon
Minister of Fisheries and Oceans

The Hon. Charles James Mayer
Minister of State for Grains and Oilseeds

The Hon. William Hunter McKnight
Minister of Indian Affairs and Northern
Development

The Hon. Thomas Michael McMillan
Minister of the Environment

The Hon. Patricia Carney
Minister of International Trade

The Hon. Benoît Bouchard
Minister of Employment and Immigration

The Hon. James Francis Kelleher
Solicitor General of Canada

The Hon. Marcel Masse
Minister of Energy, Mines and Resources

The Hon. Barbara Jean McDougall
Minister of State for Privatization and
Regulatory Affairs

The Hon. Gerald Stairs Merrithew
Minister of State for Forestry and Mines

The Hon. Monique Vézina
Minister of State for Transport

The Hon. Stewart Donald McInnes
Minister of Public Works, and Acting Minister
of Supply and Services

The Hon. Frank Oberle
Minister of State for Science and Technology

The Hon. Lowell Murray
Leader of the Government in the Senate and
Minister of State for Federal-Provincial
Relations

The Hon. Paul Wyatt Dick
Associate Minister of National Defence

The Hon. Pierre H. Cadieux
Minister of Labour

The Hon. Jean J. Charest
Minister of State for Youth

The Hon. Thomas Hockin
Minister of State for Finance

The Hon. Monique Landry
Minister for External Relations

The Hon. Bernard Valcourt
Minister of State for Small Businesses and
Tourism, and Minister of State for Indian
Affairs and Northern Development

The Hon. Gerry Weiner
Minister of State for Immigration

The Hon. Douglas Grinslade Lewis
Minister of State and Minister of State for
Treasury Board
The Hon. Pierre Blais
Minister of State for Agriculture

The Senate

In April 1989 the representation in the Senate was as follows, listed geographically from East to West by province, followed by territories, and in each grouping chronologically by appointment:

Newfoundland

The Hon. William John Petten
The Hon. Philip Derek Lewis
The Hon. Jack Marshall
The Hon. C. William Doody
The Hon. Ethel Cochrane
The Hon. Gerald R. Ottenheimer

Prince Edward Island

The Hon. Orville Howard Phillips
The Hon. Mark Lorne Bonnell
The Hon. Heath Nelson Macquarrie
The Hon. Eileen Rossiter

Nova Scotia

The Hon. John Michael Macdonald
The Hon. Henry D. Hicks
The Hon. Bernard Alasdair Graham
The Hon. Robert Muir
The Hon. John B. Stewart
The Hon. Michael Kirby
The Hon. Allan Joseph MacEachen
The Hon. Finlay MacDonald
2 vacancies

New Brunswick

The Hon. Charles Robert McElman
The Hon. Louis-J. Robichaud
The Hon. Margaret Jean Anderson
The Hon. L. Norbert Thériault
The Hon. Cyril B. Sherwood
The Hon. Roméo LeBlanc
The Hon. Eymard Corbin
The Hon. Brenda Mary Robertson
The Hon. Jean-Maurice Simard
1 vacancy

Quebec

The Hon. Hartland de Montarville Molson
The Hon. Jacques Flynn
The Hon. Azellus Denis
The Hon. Martial Asselin
The Hon. Maurice Riel
The Hon. Pietro Rizzuto
The Hon. Dalia Wood
The Hon. Fernand-E. Leblanc
The Hon. Guy Charbonneau (Speaker)
The Hon. Arthur Tremblay
The Hon. Jacques Hébert

The Hon. Leo E. Kolber
The Hon. Philippe Deane Gigantès
The Hon. Charles Watt
The Hon. Pierre De Bané
The Hon. Tom Lefebvre
The Hon. Paul P. David
The Hon. Michel Cogger
The Hon. Jean Bazin
The Hon. Gérald Beaudoin
The Hon. Roch Bolduc
The Hon. Solange Chaput-Rolland
The Hon. Jean-Marie Poitras
1 vacancy

Ontario

The Hon. David A. Croll
The Hon. David James Walker
The Hon. Rhéal Bélisle
The Hon. Daniel Aiken Lang
The Hon. Douglas Keith Davey
The Hon. Andrew Ernest Thompson
The Hon. Richard James Stanbury
The Hon. Joan Neiman
The Hon. Royce Frith
The Hon. Peter Bosa
The Hon. Stanley Haidasz
The Hon. Lowell Murray
The Hon. Peter Alan Stollery
The Hon. Peter Michael Pitfield
The Hon. William McDonough Kelly
The Hon. Jerahmiel S. Grafstein
The Hon. Anne C. Cools
The Hon. Lorna Marsden
The Hon. Colin Kenny
The Hon. Charles Turner
The Hon. Richard J. Doyle
The Hon. Norman K. Atkins
2 vacancies

Manitoba

The Hon. Douglas Donald Everett
The Hon. Gildas L. Molgat
The Hon. Dufferin Roblin
The Hon. Joseph-Philippe Guay
The Hon. Nathan Nurgitz
The Hon. Mira Spivak

Saskatchewan

The Hon. Hazen Robert Argue
The Hon. Herbert O. Sparrow
The Hon. Sidney L. Buckwold
The Hon. David Gordon Steuart
The Hon. Reginald James Balfour
The Hon. E.W. (Staff) Barootes

Alberta

The Hon. Earl Adam Hastings
The Hon. Horace Andrew (Bud) Olson
The Hon. Martha P. Bielish
The Hon. Daniel Hays
The Hon. Joyce Fairbairn
1 vacancy

British Columbia

The Hon. Ann Elizabeth Bell
The Hon. Edward M. Lawson
The Hon. George Clifford van Roggen
The Hon. Raymond Joseph Perrault
The Hon. Jacob Austin
The Hon. Leonard Stephen Marchand

Yukon

The Hon. Paul Lucier

Northwest Territories

The Hon. Willie Adams

The Queen's Privy Council for Canada

The following, with the dates when they were sworn in, were members of the Queen's Privy Council for Canada in April 1989:

The Hon. Paul Joseph James Martin, April 18, 1945
The Hon. Gabriel-Edouard Rinfret, August 25, 1949
The Hon. Walter Edward Harris, January 18, 1950
The Hon. John Whitney Pickersgill, June 12, 1953
The Hon. Paul Theodore Hellyer, April 26, 1957
The Hon. George Harris Hees, June 21, 1957
The Hon. Léon Balcer, June 21, 1957
The Hon. Edmund Davie Fulton, June 21, 1957
The Hon. Douglas Scott Harkness, June 21, 1957
The Hon. Ellen Louks Fairclough, June 21, 1957
The Hon. John Angus MacLean, June 21, 1957
The Hon. Michael Starr, June 21, 1957
The Hon. William McLean Hamilton, June 21, 1957
The Hon. William Joseph Browne, June 21, 1957
The Hon. Francis Alvin George Hamilton, August 22, 1957
HRH The Prince Philip, Duke of Edinburgh, October 14, 1957
The Hon. David James Walker, August 20, 1959
The Hon. Joseph-Pierre-Albert Sévigny, August 20, 1959
The Hon. Jacques Flynn, December 28, 1961
The Hon. Paul Martineau, August 9, 1962
The Rt. Hon. Roland Michener, October 15, 1962
The Hon. Marcel-Joseph-Aimé Lambert, February 12, 1963
The Hon. Théogène Ricard, March 18, 1963
The Hon. Frank Charles McGee, March 18, 1963
The Hon. Martial Asselin, March 18, 1963
The Hon. Mitchell William Sharp, April 22, 1963
The Hon. Azellus Denis, April 22, 1963
The Hon. George James McIlraith, April 22, 1963
The Hon. Allan Joseph MacEachen, April 22, 1963
The Hon. Hédard Robichaud, April 22, 1963
The Hon. Roger Teillet, April 22, 1963
The Hon. Charles Mills Drury, April 22, 1963
The Hon. Maurice Sauvé, February 3, 1964
The Hon. Yvon Dupuis, February 3, 1964
The Hon. Edgar John Benson, June 29, 1964
The Hon. Léo Alphonse Joseph Cadieux, February 15, 1965
The Hon. Lawrence T. Pennell, July 7, 1965

The Hon. Jean-Luc Pepin, July 7, 1965
The Hon. Alan Aylesworth Macnaughton, October 25, 1965
The Hon. Joseph Julien Jean-Pierre Côté, December 18, 1965
The Rt. Hon. John Napier Turner, December 18, 1965
The Rt. Hon. Pierre Elliott Trudeau, April 4, 1967
The Hon. Joseph-Jacques-Jean Chrétien, April 4, 1967
The Hon. Pauline Vanier, April 11, 1967
The Hon. Louis-J. Robichaud, July 5, 1967
The Hon. Dufferin Roblin, July 5, 1967
The Hon. Alexander B. Campbell, July 5, 1967
The Hon. Ernest Charles Manning, July 5, 1967
The Hon. Joseph Robert Smallwood, July 5, 1967
The Hon. Robert L. Stanfield, July 7, 1967
The Hon. Charles Ronald McKay Granger, September 25, 1967
The Hon. Bryce Stuart Mackasey, February 9, 1968
The Hon. Donald Stovel Macdonald, April 20, 1968
The Hon. John Carr Munro, April 20, 1968
The Hon. Gérard Pelletier, April 20, 1968
The Hon. Jack Davis, April 26, 1968
The Hon. Horace Andrew (Bud) Olson, July 6, 1968
The Hon. Jean-Eudes Dubé, July 6, 1968
The Hon. Stanley Ronald Basford, July 6, 1968
The Hon. Eric William Kierans, July 6, 1968
The Hon. James Armstrong Richardson, July 6, 1968
The Hon. Otto Emil Lang, July 6, 1968
The Hon. Herbert Eser Gray, October 20, 1969
The Hon. Robert Douglas George Stanbury, October 20, 1969
The Hon. Jean-Pierre Goyer, December 22, 1970
The Hon. Alastair William Gillespie, August 12, 1971
The Hon. Martin Patrick O'Connell, August 12, 1971
The Hon. Patrick Morgan Mahoney, January 28, 1972
The Hon. Stanley Haidasz, November 27, 1972
The Hon. Eugene Francis Whelan, November 27, 1972
The Hon. W. Warren Allmand, November 27, 1972
The Hon. James Hugh Faulkner, November 27, 1972
The Hon. André Ouellet, November 27, 1972
The Hon. Marc Lalonde, November 27, 1972
The Rt. Hon. Jeanne Sauvé, November 27, 1972
The Hon. Lucien Lamoureux, June 10, 1974
The Hon. Raymond Joseph Perrault, August 8, 1974
The Hon. Barnett Jerome Danson, August 8, 1974
The Hon. J. Judd Buchanan, August 8, 1974
The Hon. Roméo A. LeBlanc, August 8, 1974
The Hon. Muriel McQueen Fergusson, November 7, 1974
The Hon. Pierre Juneau, August 29, 1975
The Hon. Marcel Lessard, September 26, 1975
The Hon. Jack Sydney George Cullen, September 26, 1975
The Hon. Leonard Stephen Marchand, September 15, 1976
The Hon. John Roberts, September 15, 1976
The Hon. Monique Bégin, September 15, 1976
The Hon. Jean-Jacques Blais, September 15, 1976
The Hon. Francis Fox, September 15, 1976
The Hon. Anthony Chisholm Abbott, September 15, 1976
The Hon. Iona Campagnolo, September 15, 1976

- The Hon. Joseph-Philippe Guay, November 3, 1976
 The Hon. John Henry Horner, April 21, 1977
 The Hon. Norman A. Cafik, September 16, 1977
 The Hon. J. Gilles Lamontagne, January 19, 1978
 The Hon. John M. Reid, November 24, 1978
 The Hon. Pierre De Bané, November 24, 1978
 The Rt. Hon. Charles Joseph Clark, June 4, 1979
 The Hon. Flora Isabel MacDonald, June 4, 1979
 The Hon. James A. McGrath, June 4, 1979
 The Hon. Erik H. Nielsen, June 4, 1979
 The Hon. Allan Frederick Lawrence, June 4, 1979
 The Hon. John Carnell Crosbie, June 4, 1979
 The Hon. David S.H. MacDonald, June 4, 1979
 The Hon. Lincoln MacCauley Alexander, June 4, 1979
 The Hon. Roch LaSalle, June 4, 1979
 The Hon. Donald Frank Mazankowski, June 4, 1979
 The Hon. Elmer MacIntosh MacKay, June 4, 1979
 The Hon. Arthur Jacob Epp, June 4, 1979
 The Hon. John Allen Fraser, June 4, 1979
 The Hon. William H. Jarvis, June 4, 1979
 The Hon. Allan Bruce McKinnon, June 4, 1979
 The Hon. Sinclair McKnight Stevens, June 4, 1979
 The Hon. John Wise, June 4, 1979
 The Hon. Ronald George Atkey, June 4, 1979
 The Hon. Ramon John Hnatyshyn, June 4, 1979
 The Hon. David Edward Crombie, June 4, 1979
 The Hon. Robert R. de Cotret, June 4, 1979
 The Hon. William Heward Grafftey, June 4, 1979
 The Hon. Henry Perrin Beatty, June 4, 1979
 The Hon. J. Robert Howie, June 4, 1979
 The Hon. Steven Eugene Paproski, June 4, 1979
 The Hon. Ronald Huntington, June 4, 1979
 The Hon. Michael Holcombe Wilson, June 4, 1979
 The Hon. Renaude Lapointe, November 30, 1979
 The Hon. Stanley Howard Knowles, November 30, 1979
 The Hon. Hazen Robert Argue, March 3, 1980
 The Hon. Gerald Augustine Regan, March 3, 1980
 The Hon. Mark R. MacGuigan, March 3, 1980
 The Hon. Robert Phillip Kaplan, March 3, 1980
 The Hon. James Sydney Fleming, March 3, 1980
 The Hon. William H. Rompkey, March 3, 1980
 The Hon. Pierre Bussi eres, March 3, 1980
 The Hon. Charles Lapointe, March 3, 1980
 The Hon. Edward C. Lumley, March 3, 1980
 The Hon. Yvon Pinard, March 3, 1980
 The Hon. Donald J. Johnston, March 3, 1980
 The Hon. Lloyd Axworthy, March 3, 1980
 The Hon. Paul Cosgrove, March 3, 1980
 The Hon. Judy A. Erola, March 3, 1980
 The Hon. James A. Jerome, February 16, 1981
 The Hon. Jacob Austin, September 22, 1981
 The Hon. Charles L. Caccia, September 22, 1981
 The Hon. Serge Joyal, September 22, 1981
 The Hon. W. Bennett Campbell, September 22, 1981
 The Hon. Robert Gordon Robertson, March 2, 1982
 The Hon. John Edward Broadbent, April 17, 1982
 The Hon. Richard Bennett Hatfield, April 17, 1982
 The Hon. William Grenville Davis, April 17, 1982
 The Hon. Allan Emrys Blakeney, April 17, 1982
 The Hon. E. Peter Loughheed, April 17, 1982
 The Hon. William Richards Bennett, April 17, 1982
 The Hon. John MacLennan Buchanan, April 17, 1982
 The Hon. Alfred Brian Peckford, April 17, 1982
 The Hon. James Matthew Lee, April 17, 1982
 The Hon. Howard Russel Pawley, April 17, 1982
 The Hon. Sterling Rufus Lyon, April 17, 1982
 The Hon. David Michael Collenette, August 12, 1983
 The Hon. C  line Hervieux-Payette, August 12, 1983
 The Hon. Roger Simmons, August 12, 1983
 The Hon. David Paul Smith, August 12, 1983
 The Hon. Roy MacLaren, August 17, 1983
 The Hon. Jacques Olivier, January 10, 1984
 The Rt. Hon. Brian Dickson, April 19, 1984
 The Hon. Robert B. Bryce, April 19, 1984
 The Hon. Peter Michael Pitfield, April 19, 1984
 The Rt. Hon. Martin Brian Mulrone, May 7, 1984
 The Rt. Hon. Edward Richard Schreyer, June 3, 1984
 The Hon. Herbert Breau, June 30, 1984
 The Hon. Joseph Roger R  mi Bujold, June 30, 1984
 The Hon. Jean-C. Lapierre, June 30, 1984
 The Hon. Ralph Ferguson, June 30, 1984
 The Hon. Douglas Cockburn Frith, June 30, 1984
 The Hon. Robert Carman Coates, September 17, 1984
 The Hon. Jack Burnett Murta, September 17, 1984
 The Hon. Harvie Andre, September 17, 1984
 The Hon. Otto John Jelinek, September 17, 1984
 The Hon. Thomas Edward Siddon, September 17, 1984
 The Hon. Charles James Mayer, September 17, 1984
 The Hon. William Hunter McKnight,
 September 17, 1984
 The Hon. Rev. Walter Franklin McLean,
 September 17, 1984
 The Hon. Thomas Michael McMillan,
 September 17, 1984
 The Hon. Patricia Carney, September 17, 1984
 The Hon. Andr   Bissonnette, September 17, 1984
 The Hon. Suzanne Blais-Grenier, September 17, 1984
 The Hon. Beno  t Bouchard, September 17, 1984
 The Hon. Andr  e Champagne, September 17, 1984
 The Hon. Michel C  t  , September 17, 1984
 The Hon. James Francis Kelleher, September 17, 1984
 The Hon. Robert E. J. Layton, September 17, 1984
 The Hon. Marcel Masse, September 17, 1984
 The Hon. Barbara Jean McDougall, September 17, 1984
 The Hon. Gerald Stairs Merrithew, September 17, 1984
 The Hon. Monique V  zina, September 17, 1984
 The Hon. Maurice Riel, November 30, 1984
 The Hon. Cyril Lloyd Francis, November 30, 1984
 The Hon. Saul Mark Cherniack, November 30, 1984
 The Hon. Paule Gauthier, November 30, 1984
 The Hon. Eugene Alfred Forsey, June 10, 1985
 The Hon. Lloyd Roseville Crouse, June 10, 1985
 The Hon. Stewart Donald McInnes, August 20, 1985
 The Hon. Frank Oberle, November 20, 1985
 The Hon. Gordon Francis Joseph Osbaldeston,
 February 13, 1986
 The Hon. Lowell Murray, June 30, 1986
 The Hon. Paul Wyatt Dick, June 30, 1986
 The Hon. Pierre H. Cadieux, June 30, 1986
 The Hon. Jean J. Charest, June 30, 1986
 The Hon. Thomas Hockin, June 30, 1986
 The Hon. Monique Landry, June 30, 1986
 The Hon. Bernard Valcourt, June 30, 1986
 The Hon. Gerry Weiner, June 30, 1986

The Hon. John William Bosley, June 30, 1987
The Hon. Douglas Grinslade Lewis, August 27, 1987
The Hon. Pierre Blais, August 27, 1987
The Hon. Gerry St. Germain, March 31, 1988
The Hon. Lucien Bouchard, March 31, 1988
The Hon. John Horton McDermid, September 15, 1988
The Hon. Shirley Martin, September 15, 1988
The Hon. Mary Collins, January 30, 1989
The Hon. Alan Redway, January 30, 1989
The Hon. William Charles Winegard, January 30, 1989
The Hon. Kim Campbell, January 30, 1989
The Hon. Jean Corbeil, January 30, 1989
The Hon. Gilles Loisel, January 30, 1989

Provincial governments

The following were the executive councils of the provinces, from East to West across Canada, and the territories in June 1989.

Newfoundland

The Hon. Clyde Kirby Wells
Premier
The Hon. Richard Winston Baker
President of the Council and President of Treasury Board
The Hon. Walter Carmichael Carter
Minister of Fisheries
The Hon. Patricia Anne Cowan
Minister of Employment and Labour Relations
The Hon. Christopher Robert Decker
Minister of Health
The Hon. Paul David Dicks
Minister of Justice
The Hon. Reuben John Efford
Minister of Social Services
The Hon. Graham Ralph Flight
Minister of Forestry and Agriculture
The Hon. Charles Joseph Furey
Minister of Development
The Hon. Dr. Rex Vincent Gibbons
Minister of Mines and Energy
The Hon. David Samuel Gilbert
Minister of Works, Services and Transportation
The Hon. Eric Augustus Gullage
Minister of Municipal and Provincial Affairs
The Hon. Otto Paul James Kelland
Minister of Environment and Lands
The Hon. Dr. Hubert William Kitchen
Minister of Finance
The Hon. Dr. Philip John Warren
Minister of Education

Prince Edward Island

The Hon. Joseph A. Ghiz, QC
Premier, President of the Executive Council, Minister of Justice and Attorney General

The Hon. Gilbert R. Clements
Minister of Finance and Minister of Environment
The Hon. Leonce Bernard
Minister of Community and Cultural Affairs, and Minister of Fisheries and Aquaculture
The Hon. Robert Morrissey
Minister of Industry
The Hon. Wayne D. Cheverie, QC
Minister of Health and Social Services
The Hon. Gordon MacInnis
Minister of Transportation and Public Works
The Hon. Keith Milligan
Minister of Agriculture
The Hon. Paul Connolly
Minister of Education
The Hon. Barry Hicken
Minister of Energy and Forestry
The Hon. Nancy Guptill
Minister of Tourism and Parks
The Hon. Roberta Hubley
Minister of Labour

Nova Scotia

The Hon. John MacLennan Buchanan, PC, QC
Premier, President of Executive Council, Minister responsible for the Cabinet Secretariat and Chairman of the Policy Board
The Hon. Roger S. Bacon
Deputy Premier, Deputy President of the Executive Council, Minister of Housing and Minister responsible for the Emergency Measures Organization Act
The Hon. John MacIsaac
Minister of Mines and Energy, Chairman of the Senior Citizens Secretariat, and Minister responsible for the Communications and Information Act
The Hon. Roland J. Thornhill
Minister of Tourism and Culture, and Minister responsible for the Heritage Property Act
The Hon. Donald W. Cameron
Minister of Industry, Trade and Technology, Minister responsible for the administration of the Nova Scotia Research Foundation Corporation Act, and Minister responsible for the Advisory Council on Applied Science and Technology
The Hon. Kenneth Streatch
Minister of Small Business Development and Minister responsible for the Nova Scotia Business Capital Corporation Act
The Hon. Ronald C. Giffin, QC
Minister of Education
The Hon. Terence R.B. Donahoe, QC
Chairman of the Management Board, Minister of Government Services, Minister of Intergovernmental Affairs, Chairman of the Economic Development Committee of Cabinet and Minister responsible for the Civil Service Act

The Hon. Thomas J. McInnis
Attorney General, Minister responsible for the administration of the Human Rights Act and Chairman of the Social Development Committee of Cabinet

The Hon. Joel R. Matheson, QC
Minister of Advanced Education and Job Training

The Hon. Ronald S. Russell
Minister of Labour and Minister responsible for the administration of the Liquor Control Act

The Hon. Greg Kerr
Minister of Finance, Minister in charge of the administration of the Nova Scotia Sport and Recreation Commission, and Minister in charge of the Lottery Act

The Hon. John G. Leefe
Minister of the Environment

The Hon. George C. Moody
Minister of Transportation and Communications

The Hon. G. David Nantes
Minister of Health and Fitness, Registrar General, Minister in charge of the administration of the Drug Dependency Act and Minister responsible for reporting on the handicapped

The Hon. Guy J. LeBlanc
Minister of Community Services and Minister responsible for Acadian Affairs

The Hon. Brian A. Young
Minister of Municipal Affairs

The Hon. Donald P. McInnes
Minister of Fisheries and Minister responsible for the administration of the Advisory Council on the Status of Women Act

The Hon. R. Colin D. Stewart, MD
Minister of Consumer Affairs and Minister in charge of the Residential Tenancies Act

The Hon. George Archibald
Minister of Agriculture and Marketing

The Hon. Charles W. MacNeil, MD
Minister of Lands and Forests

The Hon. Neil J. Leblanc
Solicitor General, Provincial Secretary, Minister in charge of the Regulations Act and Minister responsible for Youth

New Brunswick

The Hon. Frank McKenna
Premier

The Hon. Aldéa Landry, QC
President of the Executive Council, Minister responsible for Intergovernmental Affairs and (Acting) Minister of Fisheries

The Hon. James E. Lockyer, CD
Attorney General and Minister of Justice

The Hon. Allan E. Maher
Minister of Finance and Minister responsible for the New Brunswick Liquor Corporation

The Hon. Gérald H. Clavette
Chairman of the Board of Management

The Hon. Bruce A. Smith
Minister of Supply and Services

The Hon. Sheldon Lee
Minister of Transportation

The Hon. Morris Green
Minister of Natural Resources and Energy

The Hon. Alan R. Graham
Minister of Agriculture

The Hon. J. Raymond Frenette
Minister of Health and Community Services

The Hon. Laureen Jarrett
Minister of Income Assistance

The Hon. Mike McKee
Minister of Labour and Minister responsible for Multiculturalism

The Hon. Shirley Dysart
Minister of Education

The Hon. Russell H. T. King, MD
Minister of Advanced Education and Training

The Hon. Vaughn Blaney
Minister of Municipal Affairs and Environment

The Hon. A. W. (Al) Lacey
Minister of Commerce and Technology

The Hon. Roland Beaulieu
Minister of Tourism, Recreation and Heritage

The Hon. Peter Trites
Minister of Housing for New Brunswick Housing Corporation

The Hon. Rayburn D. Doucett
Chairman, New Brunswick Electric Power Commission

The Hon. Joseph-Conrad Landry
Solicitor General

Quebec

The Hon. Robert Bourassa
Premier and President of the Executive Council

The Hon. Lise Bacon
Deputy Premier, Minister of Cultural Affairs and Minister of the Environment

The Hon. Gérard-D. Lévesque
Minister of Finance

The Hon. Claude Ryan
Minister of Education, and Minister of Higher Education and Science

The Hon. Gil Rémillard
Minister of Justice, Minister responsible for Canadian Intergovernmental Affairs and Minister of Public Security

The Hon. Michel Gratton
Minister of Tourism, Government House Leader and Minister responsible for Electoral Reform

The Hon. Michel Pagé
Minister of Agriculture, Fisheries and Food

The Hon. Yvon Picotte
Minister of Recreation, Hunting and Fishing, and
Minister responsible for Fisheries

The Hon. John Ciaccia
Minister of Energy and Resources

The Hon. Marc-Yvan Côté
Minister of Transport

The Hon. Thérèse Lavoie-Roux
Minister of Health and Social Services

The Hon. Pierre Paradis
Minister of Municipal Affairs

The Hon. Daniel Johnson
President of the Treasury Board and Minister respon-
sible for Administration

The Hon. Pierre Fortier
Minister responsible for Finance and Privatization

The Hon. André Bourbeau
Minister of Manpower and Income Security

The Hon. Pierre MacDonald
Minister of Industry, Commerce and Technology

The Hon. Paul Gobeil
Minister of International Affairs

The Hon. Yves Séguin
Minister of Revenue and Minister of Labour

The Hon. André Vallerand
Minister of Supply and Services

The Hon. Robert Dutil
Minister of Communications

The Hon. Monique Gagnon-Tremblay
Minister of Cultural Communities and Immigration,
and Minister responsible for the Status of Women

The Hon. Louise Robic
Minister responsible for Health and Social Services

The Hon. Albert Côté
Minister responsible for Forests

The Hon. Raymond Savoie
Minister responsible for Mines and Native Affairs

The Hon. Guy Rivard
Minister responsible for Technology

The Hon. Violette Trépanier
Minister responsible for Cultural Communities

The Hon. Gaston Blackburn
Minister responsible for the Environment

Ontario

The Hon. David Peterson
Premier, President of the Council and Minister of
Intergovernmental Affairs

The Hon. Robert Nixon
Treasurer of Ontario, Minister of Economics and
Deputy Premier

The Hon. Sean Conway
Minister of Mines and Government House Leader

The Hon. James Bradley
Minister of the Environment

The Hon. Ian G. Scott
Attorney General and Minister responsible for Native
Affairs

The Hon. Jack Riddell
Minister of Agriculture and Food

The Hon. John Eakins
Minister of Municipal Affairs

The Hon. Vincent Kerrio
Minister of Natural Resources

The Hon. Hugh O'Neil
Minister of Tourism and Recreation

The Hon. John Sweeney
Minister of Community and Social Services

The Hon. Murray Elston
Chairman of the Management Board, Minister of
Financial Institutions and Chairman of Cabinet

The Hon. William Wrye
Minister of Consumer and Commercial Relations

The Hon. Bernard Grandmaître
Minister of Revenue and Minister responsible for
Francophone Affairs

The Hon. Alvin Curling
Minister of Skills Development

The Hon. Ed Fulton
Minister of Transportation

The Hon. Monte Kwinter
Minister of Industry, Trade and Technology

The Hon. Lily Oddie Munro
Minister of Culture and Communications

The Hon. Gregory Sorbara
Minister of Labour and Minister responsible for
Women's Issues

The Hon. Elinor Caplan
Minister of Health

The Hon. René Fontaine
Minister of Northern Development

The Hon. David Ramsay
Minister of Correctional Services

The Hon. Chris Ward
Minister of Education

The Hon. Chaviva Hosek
Minister of Housing

The Hon. Lyn McLeod
Minister of Colleges and Universities

The Hon. Richard Patten
Minister of Government Services

The Hon. Gerry Phillips
Minister of Citizenship, Minister responsible for Race
Relations and Minister responsible for the Ontario
Human Rights Commission

The Hon. Robert Wong
Minister of Energy

The Hon. Remo Mancini
Minister without Portfolio responsible for Disabled Persons

The Hon. Mavis Wilson
Minister without Portfolio responsible for Senior Citizens' Affairs

Manitoba

The Hon. Gary Albert Filmon
Premier, President of the Executive Council and Minister of Federal-Provincial Relations

The Hon. James Downey
Minister of Northern Affairs, Minister responsible for Native Affairs, and Minister responsible for and charged with the administration of the Communities Economic Development Fund Act

The Hon. Donald Orchard
Minister of Health

The Hon. Albert Driedger
Minister of Highways and Transportation, and Minister of Government Services

The Hon. Clayton Sidney Manness
Minister of Finance, Minister responsible for the administration of the Crown Corporation Accountability Act, and Minister responsible for and charged with the administration of the Manitoba Data Services Act

The Hon. Charlotte Oleson
Minister of Community Services, Minister of Employment Services and Economic Security, and Minister responsible for the Status of Women

The Hon. James Cummings
Deputy Premier, Minister of Municipal Affairs, and Minister charged with the administration of the Jobs Fund Act and the Manitoba Public Insurance Corporation Act

The Hon. James McCrae
Attorney General, Keeper of the Great Seal, Minister of Cooperative, Consumer and Corporate Affairs, Minister responsible for Constitutional Affairs, Correction and the Corrections Act (except Part II), and Minister responsible for the administration of the Liquor Control Act

The Hon. Edward James Connery
Minister of Labour, Minister of Environment and Workplace Safety and Health, Minister responsible for and to have general supervision of the Civil Service Act, the Civil Service Superannuation Act, the Civil Service Special Supplementary Severance Benefit Act and the Public Servants Insurance Act, and Minister responsible for the Workers Compensation Act (except as it relates to Worker Advisers)

The Hon. James Arthur Ernst
Minister of Industry, Trade and Tourism, Minister responsible for the Development Corporation Act, Manitoba Forestry Resources Limited and Sport, and

Minister charged with the administration of the Boxing and Wrestling Commission Act and the Fitness and Amateur Sport Act

The Hon. Glen Marshall Findlay
Minister of Agriculture and Minister responsible for the administration of the Manitoba Telephone Act

The Hon. Leonard Derkach
Minister of Education

The Hon. Gerald Ducharme
Minister of Urban Affairs and Minister of Housing

The Hon. Bonnie Elizabeth Mitchelson
Minister of Culture, Heritage and Recreation, and Minister charged with the administration of the Manitoba Lotteries Foundation Act

The Hon. John Penner
Minister of Natural Resources and Minister responsible for The Manitoba Natural Resources Development Act (except with respect to Channel Area Loggers Ltd. or to Moose Lake Loggers Ltd.)

The Hon. Harold Johan Neufeld
Minister of Energy and Mines, Minister responsible for the Manitoba Hydro Act and Minister responsible for Seniors

Saskatchewan

The Hon. Grant Devine
Premier, President of the Executive Council, and Minister of Agriculture and Food

The Hon. Eric Berntson
Deputy Premier and Provincial Secretary

The Hon. Robert Lynal Andrew
Minister of Trade and Investment, Minister of Justice, and Attorney General

The Hon. John Gary Lane
Minister of Finance and Minister of Telephones

The Hon. Douglas Graham Taylor
Minister of Public Participation

The Hon. Joan H. Duncan
Minister of Economic Development and Tourism, and Minister responsible for Northern Affairs

The Hon. Neal Hardy
Minister of Rural Development

The Hon. George McLeod
Minister of Health

The Hon. Patricia Smith
Minister of Energy and Mines

The Hon. Lorne Hepworth
Minister of Education

The Hon. Colin Maxwell
Minister of Parks, Recreation and Culture

The Hon. Grant Hodgins
Minister of Highways and Transportation, and Minister responsible for the Indian and Native Affairs Secretariat

The Hon. Grant Schmidt
Minister of Human Resources, Labour and Employment, and Minister of Social Services

The Hon. Jack Klein
Minister of Urban Affairs

The Hon. Ray Meiklejohn
Minister of Science and Technology, and Minister
of Consumer and Commercial Affairs

The Hon. Herb Swan
Minister of Environment and Public Safety

Alberta

The Hon. Donald Getty
Premier and President of Executive Council

The Hon. Jim Horsman
Deputy Premier, Minister of Federal and Intergovern-
mental Affairs, and Government House Leader

The Hon. Dick Johnston
Provincial Treasurer

The Hon. Al Adair
Minister of Transportation and Utilities, and Min-
ister Responsible for Northern Alberta Development
Council

The Hon. LeRoy Fjordbotten
Minister of Forestry, Lands and Wildlife

The Hon. Peter Elzinga
Minister of Economic Development and Trade

The Hon. Rick Orman
Minister of Energy and Minister responsible for Public
Affairs Bureau

The Hon. Ernie Isley
Minister of Agriculture

The Hon. Nancy Betkowski
Minister of Health and Chairperson, Edmonton
Caucus

The Hon. Ken Rostad
Attorney General, Minister responsible for Native
Affairs and Minister responsible for Public Service
Employee Relations Board

The Hon. Fred Stewart
Minister of Technology, Research and Telecom-
munications, Deputy House Leader, and Chairman,
Calgary Caucus

The Hon. Ken Kowalski
Minister of Public Works, Supply and Services, and
Minister responsible for Public Safety Services and
Lotteries

The Hon. Connie Osterman
Minister of Career Development and Employment

The Hon. Jim Dinning
Minister of Education and Minister responsible for
Premier's Council on the Status of Persons with
Disabilities

The Hon. Donald Sparrow
Minister of Tourism

The Hon. Elaine McCoy
Minister of Labour, and Minister responsible for
Human Rights Commission, for Personnel Admin-
istration and for Women's Issues

The Hon. Dennis Anderson
Minister of Consumer and Corporate Affairs

The Hon. John Oldring
Minister of Family and Social Services

The Hon. Norm A. Weiss
Associate Minister of Family and Social Services

The Hon. Peter Trynchy
Minister responsible for Occupational Health and
Safety, and Workers' Compensation Board

The Hon. John Gogo
Minister of Advanced Education and Deputy House
Leader

The Hon. Steve West
Minister of Recreation and Parks

The Hon. Shirley McClellan
Associate Minister of Agriculture

The Hon. Ray Speaker
Minister of Municipal Affairs and Minister respon-
sible for Housing

The Hon. Ralph Klein
Minister of Environment

The Hon. Dick Fowler
Solicitor General and Minister responsible for Alberta
Liquor Control Board

The Hon. Doug Main
Minister of Culture and Multiculturalism

British Columbia

The Hon. William N. Vander Zalm
Premier and President of the Executive Council

The Hon. Anthony J. Brummet
Minister of Education

The Hon. Mel Couvelier
Minister of Finance and Corporate Relations

The Hon. Jack Davis
Minister of Energy, Mines and Petroleum Resources

The Hon. Howard Dirks
Minister responsible for Crown Lands, and Minister
of State for Thompson-Okanagan and Kootenay

The Hon. Peter A. Dueck
Minister of Health and Minister responsible for Seniors

The Hon. Stanley B. Hagen
Minister of Advanced Education and Job Training,
and Minister responsible for Science and Technology

The Hon. Lyall Hanson
Minister of Labour and Consumer Services

The Hon. Terry Huberts
Minister responsible for Parks and Minister of State
for Vancouver Island-Coast-North Coast

The Hon. John Jansen
Minister of International Business and Immigration

The Hon. Rita M. Johnston
Minister of Municipal Affairs, Recreation and Culture

The Hon. Clifford Michael
Minister of Government Management Services

The Hon. Dave Parker
Minister of Forests

The Hon. Angus Ree
Solicitor General

The Hon. William Reid
Minister of Tourism and Provincial Secretary

The Hon. Claude Richmond
Minister of Social Services and Housing

The Hon. John Savage
Minister of Agriculture and Fisheries

The Hon. Stuart (Bud) Smith, QC
Attorney General

The Hon. Bruce Strachan
Minister responsible for Environment and Minister of State for Cariboo

The Hon. Neil Vant
Minister of Transportation and Highways

The Hon. Elwood N. Veitch
Minister of Regional Development and Minister of State for Mainland-Southwest

The Hon. Jack Weisgerber
Minister responsible for Native Affairs, and Minister of State for Nechako and Northeast

Yukon

The Hon. Tony Penikett
Government Leader, Minister of the Executive Council Office, Minister of Health and Human Resources, and Minister responsible for the Yukon Development Corporation

The Hon. Piers McDonald
House Leader, Minister of Education, Minister of Finance, and Minister of Economic Development for Mines and Small Business

The Hon. Margaret Joe
Minister of Justice, Minister responsible for the Public Service Commission, Minister responsible for the Workers' Compensation Board and Minister responsible for the Women's Directorate

The Hon. Art Webster
Minister of Renewable Resources, Minister of Tourism and Minister responsible for the Yukon Liquor Corporation

The Hon. Maurice Byblow
Minister of Community and Transportation Services,

Minister of Government Services, and Minister responsible for the Yukon Housing Corporation

Northwest Territories

The Hon. Dennis Patterson
Government Leader, Minister of the Executive Department, Minister of Intergovernmental Affairs, Minister responsible for the NWT Science Advisory Board, Minister responsible for the Office of Devolution, Minister responsible for the Audit Bureau, Chairman of the Executive Council, Chairman of the Priorities and Planning Committee, and Deputy Chairman of the Financial Management Board

The Hon. Stephen Kakfwi
Deputy Government Leader, Minister of Education, Minister of Safety and Public Services, Minister of Aboriginal Rights and Constitutional Development, Minister responsible for the Workers' Compensation Board, Deputy Chairman of the Executive Council, and Chairman of the Political and Constitutional Development Committee

The Hon. Michael Ballantyne
Minister of Justice, Minister of Finance, Government House Leader, Minister responsible for the Public Utilities Board, Chairman of the Financial Management Board, and Chairman of the Legislation and House Planning Committee

The Hon. Nellie Cournoyea
Minister of Health, Minister of Energy, Mines and Petroleum Resources, Minister of Public Works, and Minister responsible for the NWT Power Corporation

The Hon. Gordon Wray
Minister of Municipal and Community Affairs, Minister of Transportation, Minister of Economic Development and Tourism, and Minister responsible for the Highway Transport Board

The Hon. Titus Allooooloo
Minister of Renewable Resources, Minister of Culture and Communications, and Associate Minister of Aboriginal Rights and Constitutional Development

The Hon. Jeannie Marie-Jewell
Minister of Social Services, Minister of Personnel, Minister responsible for the Equal Employment Directorate, Minister responsible for the Women's Secretariat and Minister responsible for Youth

The Hon. Tom Butters
Minister of Government Services and Minister responsible for the NWT Housing Corporation

APPENDIX D

COMMISSIONS OF INQUIRY

Federal commissions

Royal commissions under Part I of the Inquiries Act, established up to April 1987, are described in previous editions of the *Canada Year Book* beginning with the 1940 edition. The following list presents the federal commissions established between May 1987 and April 1989, the name of the chief commissioner or chairperson, and the date each was established.

Correctional Investigator — Penitentiary Problems, Ronald L. Stewart, November 15, 1977.
Indian Commission of Ontario (extended with new terms of reference), Roberta Louise Jamieson, March 26, 1986.

Foreign Claims Commission (extended with new terms of reference), Peter Hargadon, June 9, 1987.
Royal Commission on the Future of the Toronto Waterfront, the Hon. David Crombie, March 30, 1988.

Commission of Inquiry into the Use of Drugs and Banned Practices Intended to Increase Athletic Performance, the Hon. Charles L. Dubin, October 5, 1988.

Commission of Inquiry into the Air Ontario Crash at Dryden, Ontario, the Hon. Virgil Peter Moshansky, March 29, 1989.

Provincial and territorial commissions

The following list presents commissions of inquiry and provincial and territorial commissions established between May 1987 and April 1989, (except Quebec to December 1988), the name of the chief commissioner or chairperson, and the date each was established.

Prince Edward Island

Royal Commission on the Prince Edward Island Potato Industry, Fred Driscoll, November 1987.
Royal Commission on the Land, Douglas B. Boylan, October 20, 1988.

Nova Scotia

Royal Commission on Health Care Costs, J. Camille Gallant, August 25, 1987.

A Commission of Inquiry on Remuneration of Elected Provincial Officials, George M. Mitchell and George White, December 1, 1988 (annual commission).

Quebec

Commission of inquiry into the sexual abuse of children who receive services from an assistance centre in the Montreal region, Jean Denis Gagnon, November 4, 1987.

Manitoba

Autopac Review Commission, the Hon. Judge Robert Kopstein, February 2, 1988.

Public Inquiry into the Administration of Justice and Aboriginal People, the Hon. Mr. Justice A. Hamilton, April 13, 1988.

Saskatchewan

The Saskatchewan Commission on Directions in Health Care, Robert Murray, June 3, 1988.

British Columbia

Commission of Inquiry into Electoral Reform, the Hon. Thomas Kemp Fisher, April 9, 1987.

Commission of Inquiry to Report on the Costs of Construction of the Coquihalla Highway, Douglas L. MacKay, July 29, 1987.

Commission of Inquiry into the Escape from the Lower Mainland Regional Correctional Centre, the Hon. Judge Jan L. Drost, January 6, 1988.

Commission of Inquiry into the Collapse of a Portion of the Station Square Development in Burnaby, Dan J. Closkey, May 4, 1988.

Commission of Inquiry into the Alleged Improper Treatment of Robert or Francine Fullerton by Members of the Matsqui Police, J. David N. Edgar, Mary E. Saunders and Audrey L. Moore, February 1, 1989.

Yukon

Public Inquiry Respecting Fuel Pricing in the Yukon Regulations, J. Kenneth McKinnon, January 5, 1988.

APPENDIX E

CONSTITUTION

Proclamation

The Constitution Act, 1982, was proclaimed in force April 17, 1982. The following text of the proclamation is reprinted from Canada Gazette Part II, Vol. 116, No. 9, May 12, 1982:

Elizabeth R

Jean Chrétien

Attorney General of Canada

Elizabeth the Second, by the Grace of God of the United Kingdom, Canada and Her other Realms and Territories **Queen**, Head of the Commonwealth, Defender of the Faith.

To All to Whom these Presents shall come or whom the same may in any way concern,

Greeting:

A Proclamation

Whereas in the past certain amendments to the Constitution of Canada have been made by the Parliament of the United Kingdom at the request and with the consent of Canada;

And Whereas it is in accord with the status of Canada as an independent state that Canadians be able to amend their Constitution in Canada in all respects;

And Whereas it is desirable to provide in the Constitution of Canada for the recognition of certain fundamental rights and freedoms and to make other amendments to the Constitution;

And Whereas the Parliament of the United Kingdom has, at the request and with the consent of Canada, enacted the Canada Act, which provides for the patriation and amendment of the Constitution of Canada;

And Whereas section 58 of the Constitution Act, 1982, set out in Schedule B to the Canada Act, provides that the Constitution Act, 1982 shall, subject to section 59 thereof, come into force on a day to be fixed by proclamation issued under the Great Seal of Canada.

Now Know You that We, by and with the advice of Our Privy Council for Canada, do by this Our Proclamation, declare that the Constitution Act, 1982 shall, subject to section 59 thereof, come into force on the seventeenth day of April in the Year of Our Lord One Thousand Nine Hundred and Eighty-two.

Of All Which Our Loving Subjects and all others whom these Presents may concern are hereby required to take notice and to govern themselves accordingly.

In Testimony Whereof We have caused these Our Letters to be made Patent and the Great Seal of Canada to be hereunto affixed.

At Our City of Ottawa, this seventeenth day of April in the Year of Our Lord One Thousand Nine Hundred and Eighty-two and in the Thirty-first Year of Our Reign.

By Her Majesty's Command

André Ouellet

Registrar General of Canada

Pierre Trudeau

Prime Minister of Canada

GOD SAVE THE QUEEN

Canada Act 1982

The Canada Act 1982 (U.K.) 1982, c.11, came into force April 17, 1982. The Canada Act 1982 other than Schedule A (French version of Constitution

Act, 1982) and Schedule B (English version) thereto, reads as follows:

An Act to give effect to a request by the Senate and House of Commons of Canada

Whereas Canada has requested and consented to the enactment of an Act of the Parliament of the United Kingdom to give effect to the provisions hereinafter set forth and the Senate and the House of Commons of Canada in Parliament assembled have submitted an address to Her Majesty requesting that Her Majesty may graciously be pleased to cause a Bill to be laid before the Parliament of the United Kingdom for that purpose.

Be it therefore enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

1. The Constitution Act, 1982 set out in Schedule B to this Act is hereby enacted for and shall have the force of law in Canada and shall come into force as provided in that Act.
2. No Act of the Parliament of the United Kingdom passed after the Constitution Act, 1982 comes into force shall extend to Canada as part of its law.
3. So far as it is not contained in Schedule B, the French version of this Act is set out in Schedule A to this Act and has the same authority in Canada as the English version thereof.
4. This Act may be cited as the Canada Act 1982.

Constitution Act, 1982

The Constitution Act, 1982 was enacted as Schedule B to the Canada Act 1982. The following text is extracted from A consolidation of the Constitution Acts 1867 to 1982, Department of Justice Canada, consolidated as of April 17, 1982. The Constitution Act, 1982 came into effect on that date with the exception of paragraph 23(1)(a) in respect of Quebec. The schedule to the Constitution Act, 1982, referred to in Part VII contains repeals of certain earlier constitutional enactments and provides for the renaming of others, as part of the modernization of the constitution. (The schedule is not reprinted here.)

Part I Canadian Charter of Rights and Freedoms

Whereas Canada is founded upon principles that recognize the supremacy of God and the rule of law:

Guarantee of Rights and Freedoms

1. The *Canadian Charter of Rights and Freedoms* guarantees the rights and freedoms set out in it subject only to such reasonable limits prescribed by law as can be demonstrably justified in a free and democratic society.

Fundamental Freedoms

2. Everyone has the following fundamental freedoms:

- (a) freedom of conscience and religion;
- (b) freedom of thought, belief, opinion and expression, including freedom of the press and other media of communication;
- (c) freedom of peaceful assembly; and
- (d) freedom of association.

Democratic Rights

3. Every citizen of Canada has the right to vote in an election of members of the House of Commons or of a legislative assembly and to be qualified for membership therein.

4. (1) No House of Commons and no legislative assembly shall continue for longer than five years from the date fixed for the return of the writs of a general election of its members.

(2) In time of real or apprehended war, invasion or insurrection, a House of Commons may be continued by Parliament and a legislative assembly may be continued by the legislature beyond five years if such continuation is not opposed by the votes of more than one-third of the members of the House of Commons or the legislative assembly, as the case may be.

5. There shall be a sitting of Parliament and of each legislature at least once every twelve months.

Mobility Rights

6. (1) Every citizen of Canada has the right to enter, remain in and leave Canada.

(2) Every citizen of Canada and every person who has the status of a permanent resident of Canada has the right

- (a) to move to and take up residence in any province; and
- (b) to pursue the gaining of a livelihood in any province.

(3) The rights specified in subsection (2) are subject to

- (a) any laws or practices of general application in force in a province other than those that discriminate among persons primarily on the basis of province of present or previous residence; and

(b) any laws providing for reasonable residency requirements as a qualification for the receipt of publicly provided social services.

(4) Subsections (2) and (3) do not preclude any law, program or activity that has as its object the amelioration in a province of conditions of individuals in that province who are socially or economically disadvantaged if the rate of employment in that province is below the rate of employment in Canada.

Legal Rights

7. Everyone has the right to life, liberty and security of the person and the right not to be deprived thereof except in accordance with the principles of fundamental justice.

8. Everyone has the right to be secure against unreasonable search or seizure.

9. Everyone has the right not to be arbitrarily detained or imprisoned.

10. Everyone has the right on arrest or detention
(a) to be informed promptly of the reasons therefor;
(b) to retain and instruct counsel without delay and to be informed of that right; and
(c) to have the validity of the detention determined by way of *habeas corpus* and to be released if the detention is not lawful.

11. Any person charged with an offence has the right

- (a) to be informed without unreasonable delay of the specific offence;
- (b) to be tried within a reasonable time;
- (c) not to be compelled to be a witness in proceedings against that person in respect of the offence;
- (d) to be presumed innocent until proven guilty according to law in a fair and public hearing by an independent and impartial tribunal;
- (e) not to be denied reasonable bail without just cause;
- (f) except in the case of an offence under military law tried before a military tribunal, to the benefit of trial by jury where the maximum punishment for the offence is imprisonment for five years or a more severe punishment;
- (g) not to be found guilty on account of any act or omission unless, at the time of the act or omission, it constituted an offence under Canadian or international law or was criminal according to the general principles of law recognized by the community of nations;
- (h) if finally acquitted of the offence, not to be tried for it again and, if finally found guilty and

punished for the offence, not to be tried or punished for it again; and

(i) if found guilty of the offence and if the punishment for the offence has been varied between the time of commission and the time of sentencing, to the benefit of the lesser punishment.

12. Everyone has the right not to be subjected to any cruel and unusual treatment or punishment.

13. A witness who testifies in any proceedings has the right not to have any incriminating evidence so given used to incriminate that witness in any other proceedings, except in a prosecution for perjury or for the giving of contradictory evidence.

14. A party or witness in any proceedings who does not understand or speak the language in which the proceedings are conducted or who is deaf has the right to the assistance of an interpreter.

Equality Rights

15. (1) Every individual is equal before and under the law and has the right to the equal protection and equal benefit of the law without discrimination and, in particular, without discrimination based on race, national or ethnic origin, colour, religion, sex, age or mental or physical disability.

(2) Subsection (1) does not preclude any law, program or activity that has as its object the amelioration of conditions of disadvantaged individuals or groups including those that are disadvantaged because of race, national or ethnic origin, colour, religion, sex, age or mental or physical disability.

Official Languages of Canada

16. (1) English and French are the official languages of Canada and have equality of status and equal rights and privileges as to their use in all institutions of the Parliament and government of Canada.

(2) English and French are the official languages of New Brunswick and have equality of status and equal rights and privileges as to their use in all institutions of the legislature and government of New Brunswick.

(3) Nothing in this Charter limits the authority of Parliament or a legislature to advance the equality of status or use of English and French.

17. (1) Everyone has the right to use English or French in any debates and other proceedings of Parliament.

(2) Everyone has the right to use English or French in any debates and other proceedings of the legislature of New Brunswick.

18. (1) The statutes, records and journals of Parliament shall be printed and published in English and French and both language versions are equally authoritative.

(2) The statutes, records and journals of the legislature of New Brunswick shall be printed and published in English and French and both language versions are equally authoritative.

19. (1) Either English or French may be used by any person in, or in any pleading in or process issuing from, any court established by Parliament.

(2) Either English or French may be used by any person in, or in any pleading in or process issuing from, any court of New Brunswick.

20. (1) Any member of the public in Canada has the right to communicate with, and to receive available services from, any head or central office of an institution of the Parliament or government of Canada in English or French, and has the same right with respect to any other office of any such institution where

(a) there is a significant demand for communications with and services from that office in such language; or

(b) due to the nature of the office, it is reasonable that communications with and services from that office be available in both English and French.

(2) Any member of the public in New Brunswick has the right to communicate with, and to receive available services from, any office of an institution of the legislature or government of New Brunswick in English or French.

21. Nothing in sections 16 to 20 abrogates or derogates from any right, privilege or obligation with respect to the English and French languages, or either of them, that exists or is continued by virtue of any other provision of the Constitution of Canada.

22. Nothing in sections 16 to 20 abrogates or derogates from any legal or customary right or privilege acquired or enjoyed either before or after the coming into force of this Charter with respect to any language that is not English or French.

Minority Language Educational Rights

23. (1) Citizens of Canada

(a) whose first language learned and still understood is that of the English or French linguistic minority population of the province in which they reside, or

(b) who have received their primary school instruction in Canada in English or French and reside in a province where the language in which they received that instruction is the language of the English or French linguistic minority population of the province, have the right to have their children receive primary and secondary school instruction in that language in that province.

(2) Citizens of Canada of whom any child has received or is receiving primary or secondary school instruction in English or French in Canada, have the right to have all their children receive primary and secondary school instruction in the same language.

(3) The right of citizens of Canada under subsections (1) and (2) to have their children receive primary and secondary school instruction in the language of the English or French linguistic minority population of a province

(a) applies wherever in the province the number of children of citizens who have such a right is sufficient to warrant the provision to them out of public funds of minority language instruction; and

(b) includes, where the number of those children so warrants, the right to have them receive that instruction in minority language educational facilities provided out of public funds.

Enforcement

24. (1) Anyone whose rights or freedoms, as guaranteed by this Charter, have been infringed or denied may apply to a court of competent jurisdiction to obtain such remedy as the court considers appropriate and just in the circumstances.

(2) Where, in proceedings under subsection (1), a court concludes that evidence was obtained in a manner that infringed or denied any rights or freedoms guaranteed by this Charter, the evidence shall be excluded if it is established that, having regard to all the circumstances, the admission of it in the proceedings would bring the administration of justice into disrepute.

General

25. The guarantee of this Charter of certain rights and freedoms shall not be construed so as to abrogate or derogate from any aboriginal, treaty or other rights or freedoms that pertain to the aboriginal peoples of Canada including

(a) any rights or freedoms that have been recognized by the Royal Proclamation of October 7, 1763; and

(b) any rights or freedoms that may be acquired by the aboriginal peoples of Canada by way of land claims settlement.

26. The guarantee in this Charter of certain rights and freedoms shall not be construed as denying the existence of any other rights or freedoms that exist in Canada.

27. This Charter shall be interpreted in a manner consistent with the preservation and enhancement of the multicultural heritage of Canadians.

28. Notwithstanding anything in this Charter, the rights and freedoms referred to in it are guaranteed equally to male and female persons.

29. Nothing in this Charter abrogates or derogates from any rights or privileges guaranteed by or under the Constitution of Canada in respect of denominational, separate or dissentient schools.

30. A reference in this Charter to a Province or to the legislative assembly or legislature of a province shall be deemed to include a reference to the Yukon Territory and the Northwest Territories, or to the appropriate legislative authority thereof, as the case may be.

31. Nothing in this Charter extends the legislative powers of any body or authority.

Application of Charter

32. (1) This Charter applies
(a) to the Parliament and government of Canada in respect of all matters within the authority of Parliament including all matters relating to the Yukon Territory and Northwest Territories; and
(b) to the legislature and government of each province in respect of all matters within the authority of the legislature of each province.
(2) Notwithstanding subsection (1), section 15 shall not have effect until three years after this section comes into force.

33. (1) Parliament or the legislature of a province may expressly declare in an Act of Parliament or of the legislature, as the case may be, that the Act or a provision thereof shall operate notwithstanding a provision included in section 2 or sections 7 to 15 of this Charter.

(2) An Act or a provision of an Act in respect of which a declaration made under this section is in effect shall have such operation as it would have but for the provision of this Charter referred to in the declaration.

(3) A declaration made under subsection (1) shall cease to have effect five years after it comes into force or on such earlier date as may be specified in the declaration.

(4) Parliament or the legislature of a province may re-enact a declaration made under subsection (1).

(5) Subsection (3) applies in respect of a re-enactment made under subsection (4).

Citation

34. This Part may be cited as the *Canadian Charter of Rights and Freedoms*.

Part II Rights of the Aboriginal Peoples of Canada

35. (1) The existing aboriginal and treaty rights of the aboriginal peoples of Canada are hereby recognized and affirmed.

(2) In this Act, “aboriginal peoples of Canada” includes the Indian, Inuit and Métis peoples of Canada.

Part III Equalization and Regional Disparities

36. (1) Without altering the legislative authority of Parliament or of the provincial legislatures, or the rights of any of them with respect to the exercise of their legislative authority, Parliament and the legislatures, together with the government of Canada and the provincial governments, are committed to

(a) promoting equal opportunities for the well-being of Canadians;
(b) furthering economic development to reduce disparity in opportunities; and
(c) providing essential public services of reasonable quality to all Canadians.

(2) Parliament and the government of Canada are committed to the principle of making equalization payments to ensure that provincial governments have sufficient revenues to provide reasonably comparable levels of public services at reasonably comparable levels of taxation.

Part IV Constitutional Conference

37. (1) A constitutional conference composed of the Prime Minister of Canada and the first ministers of the provinces shall be convened by the Prime Minister of Canada within one year after this Part comes into force.

(2) The conference convened under subsection (1) shall have included in its agenda an item respecting constitutional matters that directly affect the aboriginal peoples of Canada, including the identification and definition of the rights of those peoples to be included in the Constitution of Canada and the Prime Minister of Canada shall invite representatives of those peoples to participate in the discussions on that item.

(3) The Prime Minister of Canada shall invite elected representatives of the governments of the Yukon Territory and the Northwest Territories to participate in the discussions on any item on the agenda of the conference convened under subsection (1) that, in the opinion of the Prime Minister, directly affects the Yukon Territory and the Northwest Territories.

Part V

Procedure for Amending Constitution of Canada

38. (1) An amendment to the Constitution of Canada may be made by proclamation issued by the Governor General under the Great Seal of Canada where so authorized by

- (a) resolutions of the Senate and House of Commons; and
- (b) resolutions of the legislative assemblies of at least two-thirds of the provinces that have, in the aggregate, according to the then latest general census, at least fifty per cent of the population of all the provinces.

(2) An amendment made under subsection (1) that derogates from the legislative powers, the proprietary rights or any other rights or privileges of the legislature or government of a province shall require a resolution supported by a majority of the members of each of the Senate, the House of Commons and the legislative assemblies required under subsection (1).

(3) An amendment referred to in subsection (2) shall not have effect in a province the legislative assembly of which has expressed its dissent thereto by resolution supported by a majority of its members prior to the issue of the proclamation to which the amendment relates unless that legislative assembly, subsequently, by resolution supported by a majority of its members, revokes its dissent and authorizes the amendment.

(4) A resolution of dissent made for the purposes of subsection (3) may be revoked at any time before or after the issue of the proclamation to which it relates.

39. (1) A proclamation shall not be issued under subsection 38(1) before the expiration of one year from the adoption of the resolution initiating the amendment procedure thereunder, unless the legislative assembly of each province has previously adopted a resolution of assent or dissent.

(2) A proclamation shall not be issued under subsection 38(1) after the expiration of three years from the adoption of the resolution initiating the amendment procedure thereunder.

40. Where an amendment is made under subsection 38(1) that transfers provincial legislative powers relating to education or other cultural matters from provincial legislatures to Parliament, Canada shall provide reasonable compensation to any province to which the amendment does not apply.

41. An amendment to the Constitution of Canada in relation to the following matters may be made by proclamation issued by the Governor General under the Great Seal of Canada only where authorized by resolutions of the Senate and House of Commons and of the legislative assembly of each province:

- (a) the office of the Queen, the Governor General and the Lieutenant Governor of a province;
- (b) the right of a province to a number of members in the House of Commons not less than the number of Senators by which the province is entitled to be represented at the time this Part comes into force;
- (c) subject to section 43, the use of the English or the French language;
- (d) the composition of the Supreme Court of Canada; and
- (e) an amendment to this Part.

42. (1) An amendment to the Constitution of Canada in relation to the following matters may be made only in accordance with subsection 38(1):

- (a) the principle of proportionate representation of the provinces in the House of Commons prescribed by the Constitution of Canada;
- (b) the powers of the Senate and the method of selecting Senators;
- (c) the number of members by which a province is entitled to be represented in the Senate and the residence qualifications of Senators;
- (d) subject to paragraph 41(d), the Supreme Court of Canada;
- (e) the extension of existing provinces into the territories; and
- (f) notwithstanding any other law or practice, the establishment of new provinces.

(2) Subsections 38(2) to (4) do not apply in respect of amendments in relation to matters referred to in subsection (1).

43. An amendment to the Constitution of Canada in relation to any provision that applies to one or more, but not all, provinces, including

- (a) any alteration to boundaries between provinces, and
- (b) any amendment to any provision that relates to the use of the English or the French language within a province, may be made by proclamation issued by the Governor General under the Great Seal of Canada only where so authorized by resolutions of the Senate and House of Commons and of the legislative assembly of each province to which the amendment applies.

44. Subject to sections 41 and 42, Parliament may exclusively make laws amending the Constitution of Canada in relation to the executive government of Canada or the Senate and House of Commons.

45. Subject to section 41, the legislature of each province may exclusively make laws amending the Constitution of the province.

46. (1) The procedures for amendment under sections 38, 41, 42 and 43 may be initiated either by the Senate or the House of Commons or by the legislative assembly of a province.

(2) A resolution of assent made for the purposes of this Part may be revoked at any time before the issue of a proclamation authorized by it.

47. (1) An amendment to the Constitution of Canada made by proclamation under section 38, 41, 42 or 43 may be made without a resolution of the Senate authorizing the issue of the proclamation if, within one hundred and eighty days after the adoption by the House of Commons of a resolution authorizing its issue, the Senate has not adopted such a resolution and if, at any time after the expiration of that period, the House of Commons again adopts the resolution.

(2) Any period when Parliament is prorogued or dissolved shall not be counted in computing the one hundred and eighty day period referred to in subsection (1).

48. The Queen's Privy Council for Canada shall advise the Governor General to issue a proclamation under this Part forthwith on the adoption of the resolutions required for an amendment made by proclamation under this Part.

49. A constitutional conference composed of the Prime Minister of Canada and the first ministers of the provinces shall be convened by the Prime Minister of Canada within fifteen years after this Part comes into force to review the provisions of this Part.

Part VI Amendment to the Constitution Act, 1867

50. The *Constitution Act, 1867* (formerly named the *British North America Act, 1867*) is amended by adding thereto, immediately after section 92 thereof, the following heading and section:

Non-Renewable Natural Resources, Forestry Resources and Electrical Energy

92A. (1) In each province, the legislature may exclusively make laws in relation to

(a) exploration for non-renewable natural resources in the province;

(b) development, conservation and management of non-renewable natural resources and forestry resources in the province, including laws in relation to the rate of primary production therefrom; and

(c) development, conservation and management of sites and facilities in the province for the generation and production of electrical energy.

(2) In each province, the legislature may make laws in relation to the export from the province to another part of Canada of the primary production from non-renewable natural resources and forestry resources in the province and the production from facilities in the province for the generation of electrical energy, but such laws may not authorize or provide for discrimination in prices or in supplies exported to another part of Canada.

(3) Nothing in subsection (2) derogates from the authority of Parliament to enact laws in relation to matters referred to in that subsection and, where such a law of Parliament and a law of a province conflict, the law of Parliament prevails to the extent of the conflict.

(4) In each province, the legislature may make laws in relation to the raising of money by any mode or system of taxation in respect of

(a) non-renewable natural resources and forestry resources in the province and the primary production therefrom, and

(b) sites and facilities in the province for the generation of electrical energy and the production therefrom, whether or not such production is exported in whole or in part from the province, but such laws may not authorize or provide for taxation that differentiates between production exported to another part of Canada and production not exported from the province.

(5) The expression "primary production" has the meaning assigned by the Sixth Schedule.

(6) Nothing in subsections (1) to (5) derogates from any powers or rights that a legislature or

government of a province had immediately before the coming into force of this section.

51. The said Act is further amended by adding thereto the following Schedule:

THE SIXTH SCHEDULE

Primary Production from Non-Renewable Natural Resources and Forestry Resources

1. For the purposes of section 92A of this Act,
 - (a) production from a non-renewable natural resource is primary production therefrom if
 - (i) it is in the form in which it exists upon its recovery or severance from its natural state, or
 - (ii) it is a product resulting from processing or refining the resource, and is not a manufactured product or a product resulting from refining crude oil, refining upgraded heavy crude oil, refining gases or liquids derived from coal or refining a synthetic equivalent of crude oil; and
 - (b) production from a forestry resource is primary production therefrom if it consists of sawlogs, poles, lumber, wood chips, sawdust or any other primary wood product, or wood pulp, and is not a product manufactured from wood.

Part VII General

52. (1) The Constitution of Canada is the supreme law of Canada, and any law that is inconsistent with the provisions of the Constitution is, to the extent of the inconsistency, of no force or effect.

- (2) The Constitution of Canada includes
 - (a) the *Canada Act 1982*, including this Act;
 - (b) the Acts and orders referred to in the schedule; and
 - (c) any amendment to any Act or order referred to in paragraph (a) or (b).
- (3) Amendments to the Constitution of Canada shall be made only in accordance with the authority contained in the Constitution of Canada.

53. (1) The enactments referred to in Column I of the schedule are hereby repealed or amended to the extent indicated in Column II thereof and, unless repealed, shall continue as law in Canada under the names set out in Column III thereof.

(2) Every enactment, except the *Canada Act 1982*, that refers to an enactment referred to in the schedule by the name in Column I thereof is hereby amended by substituting for that name the corresponding name in Column III thereof, and any

British North America Act not referred to in the schedule may be cited as the *Constitution Act* followed by the year and number, if any, of its enactment.

54. Part IV is repealed on the day that is one year after this Part comes into force and this section may be repealed and this act renumbered, consequentially upon the repeal of Part IV and this section, by proclamation issued by the Governor General under the Great Seal of Canada.

55. A French version of the portions of the Constitution of Canada referred to in the schedule shall be prepared by the Minister of Justice of Canada as expeditiously as possible and, when any portion thereof sufficient to warrant action being taken has been so prepared, it shall be put forward for enactment by proclamation issued by the Governor General under the Great Seal of Canada pursuant to the procedure then applicable to an amendment of the same provisions of the Constitution of Canada.

56. Where any portion of the Constitution of Canada has been or is enacted in English and French or where a French version of any portion of the Constitution is enacted pursuant to section 55, the English and French versions of that portion of the Constitution are equally authoritative.

57. The English and French versions of this Act are equally authoritative.

58. Subject to section 59, this Act shall come into force on a day to be fixed by proclamation issued by the Queen or the Governor General under the Great Seal of Canada.

59. (1) Paragraph 23(1)(a) shall come into force in respect of Quebec on a day to be fixed by proclamation issued by the Queen or the Governor General under the Great Seal of Canada.

(2) A proclamation under subsection (1) shall be issued only where authorized by the legislative assembly or government of Quebec.

(3) This section may be repealed on the day paragraph 23(1)(a) comes into force in respect of Quebec and this Act amended and renumbered, consequentially upon the repeal of this section, by proclamation issued by the Queen or the Governor General under the Great Seal of Canada.

60. This Act may be cited as the *Constitution Act, 1982*, and the Constitution Acts 1867 to 1975 (No. 2) and this Act may be cited together as the *Constitution Acts, 1867 to 1982*.

Registration
SI/84-102 11 July, 1984

CONSTITUTION ACT, 1982

Constitution Amendment Proclamation, 1983

By Her Excellency the Right Honourable **Jeanne Sauvé**, Governor General and Commander-in-Chief of Canada.

To All to Whom these Presents shall come,

Greeting:

Jeanne Sauvé

A Proclamation

Whereas the “Constitution Act, 1982” provides that an amendment to the Constitution of Canada may be made by proclamation issued by the Governor General under the Great Seal of Canada where so authorized by resolutions of the Senate and House of Commons and resolutions of the legislative assemblies as provided for in section 38 thereof;

And Whereas a constitutional conference composed of the Prime Minister of Canada and the first ministers of the provinces was convened pursuant to section 37 of the “Constitution Act, 1982”;

And Whereas that conference had included in its agenda an item respecting constitutional matters that directly affect the aboriginal peoples of Canada, including the identification and definition of the rights of those peoples to be included in the Constitution of Canada;

And Whereas the Prime Minister of Canada invited representatives of the aboriginal peoples of Canada and elected representatives of the governments of the Yukon Territory and the Northwest Territories to participate in discussions at that conference;

And Whereas, following that conference, the Senate, the House of Commons and the legislative assemblies of at least two-thirds of the provinces that have, in the aggregate, according to the latest general census, at least fifty per cent of the population of all the provinces, have, by resolution, authorized an amendment to the Constitution of Canada to be made by proclamation issued by the Governor General under the Great Seal of Canada;

And Whereas one year, and not more than three years, have expired from the adoption of the resolution initiating the amendment procedure relating to the amendment to the Constitution of Canada set forth in the schedule hereto;

And Whereas the Queen’s Privy Council for Canada has advised me to issue this proclamation.

Now Know You that I do issue this proclamation amending the Constitution of Canada in accordance with the schedule hereto.

In Testimony Whereof I have caused these Letters to be made Patent and the Great Seal of Canada to be hereunto affixed.

At Government House, in the City of Ottawa, this twenty-first day of June in the Year of Our Lord one thousand nine hundred and eighty-four.

By Command,

Mark MacGuigan
Attorney General of Canada

Judy Erola
Registrar General of Canada

P.E. Trudeau
Prime Minister of Canada

Schedule Proclamation Amending the Constitution of Canada

1. Paragraph 25(b) of the “*Constitution Act, 1982*” is repealed and the following substituted therefor:

“(b) any rights or freedoms that now exist by way of land claims agreements or may be so acquired.”

2. Section 35 of the “*Constitution Act, 1982*” is amended by adding thereto the following subsections:

Land Claims Agreements

“(3) For greater certainty, in subsection (1) “treaty rights” includes rights that now exist by way of land claims agreements or may be so acquired.

Aboriginal and Treaty Rights are guaranteed equally to both sexes

(4) Notwithstanding any other provision of this Act, the aboriginal and treaty rights referred to in subsection (1) are guaranteed equally to male and female persons.”

3. The said Act is further amended by adding thereto, immediately after section 35 thereof, the following section:

Commitment to participation in constitutional conference

“35.1 The government of Canada and the provincial governments are committed to the principle that, before any amendment is made to Class 24 of section 91 of the “*Constitution Act, 1867*”, to section 25 of this Act or to this Part,

(a) a constitutional conference that includes in its agenda an item relating to the proposed amendment, composed of the Prime Minister of Canada and the first ministers of the provinces, will be convened by the Prime Minister of Canada; and
(b) the Prime Minister of Canada will invite representatives of the aboriginal peoples of Canada to participate in the discussions on that item.”

4. The said Act is further amended by adding thereto, immediately after section 37 thereof, the following Part:

**“Part IV.I
Constitutional Conferences**

Constitutional conferences

37.1 (1) In addition to the conference convened in March 1983, at least two constitutional conferences composed of the Prime Minister of Canada and the first ministers of the provinces shall be convened by the Prime Minister of Canada, the first within three years after April 17, 1982 and the second within five years after that date.

Participation of aboriginal peoples

(2) Each conference convened under subsection (1) shall have included in its agenda constitutional

matters that directly affect the aboriginal peoples of Canada, and the Prime Minister of Canada shall invite representatives of those peoples to participate in the discussions on those matters.

Participation of territories

(3) The Prime Minister of Canada shall invite elected representatives of the governments of the Yukon Territory and the Northwest Territories to participate in the discussions on any item on the agenda of a conference convened under subsection (1) that, in the opinion of the Prime Minister, directly affects the Yukon Territory and the Northwest Territories.

Subsection 35(1) not affected

(4) Nothing in this section shall be construed so as to derogate from subsection 35(1).”

5. The said Act is further amended by adding thereto, immediately after section 54 thereof, the following section:

Repeal of Part IV.I and this section

“54.1 Part IV.I and this section are repealed on April 18, 1987.”

6. The said Act is further amended by adding thereto the following section:

References

“61. A reference to the “*Constitution Acts, 1867 to 1982*” shall be deemed to include a reference to the “*Constitution Amendment Proclamation, 1983*”.

Citation

7. This Proclamation may be cited as the “*Constitution Amendment Proclamation, 1983*”.

APPENDIX F

STATISTICS CANADA REGIONAL OFFICES

- **Newfoundland and Labrador**

Advisory Services
Statistics Canada
3rd Floor
Viking Building
Crosbie Road
St. John's, Newfoundland
A1B 3P2
Local calls: 772-4073
Toll free service: 1-800-563-4255

- **Maritime provinces**

Advisory Services
Statistics Canada
North American Life Centre
1770 Market Street
Halifax, Nova Scotia
B3J 3M3
Local calls: 426-5331
Toll free service: 1-800-565-7192

- **Quebec**

Advisory Services
Statistics Canada
Guy Favreau Complex
200 René Lévesque Blvd. W.
East Tower, Room 412
Montreal, Quebec
H2Z 1X4
Local calls: 283-5725
Toll free service: 1-800-361-2831

- **National Capital Region**

Statistical Reference
Centre (N.C.R.)
Statistics Canada
Lobby, R.H. Coats Building
Tunney's Pasture
Ottawa, Ontario
K1A 0T6
Local calls: 951-8116
If outside the local calling
area, please dial the toll free
number for your province

- **Ontario**

Advisory Services
Statistics Canada
10th Floor
Arthur Meighen Building
25 St. Clair Avenue East
Toronto, Ontario
M4T 1M4
Local calls: 973-6586
Toll free service: 1-800-263-1136

- **Manitoba**

Advisory Services
Statistics Canada
6th Floor
General Post Office Building
266 Graham Avenue
Winnipeg, Manitoba
R3C 0K4
Local calls: 983-4020
Toll free service: 1-800-542-3404

- **Saskatchewan**

Advisory Services
Statistics Canada
9th Floor, Avord Tower
2002 Victoria Avenue
Regina, Saskatchewan
S4P 0R7
Local calls: 780-5405
Toll free service: 1-800-667-7164

- **Alberta and Northwest Territories**

Advisory Services
Statistics Canada
Park Square, 8th Floor
10001 Bellamy Hill
Edmonton, Alberta
T5J 3B6
Local calls: 495-3027
Toll free service: 1-800-282-3907
NWT — Call collect (403)495-3028

- **Southern Alberta (Calgary)**

Advisory Services
Statistics Canada
Room #401, First Street Plaza
138 – 4th Avenue S.E.
Calgary, Alberta
T2G 4Z6
Local calls: 292-6717
Toll free service: 1-800-472-9708

- **British Columbia and the Yukon**

Advisory Services
Statistics Canada
3rd Floor
Federal Building, Sinclair Centre
757 West Hastings Street
Suite 440F
Vancouver, British Columbia
V6C 3C9
Local calls: 666-3691
Toll free service (except Atlin, BC)
1-800-663-1551
Yukon and Atlin BC: Zenith 08913

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